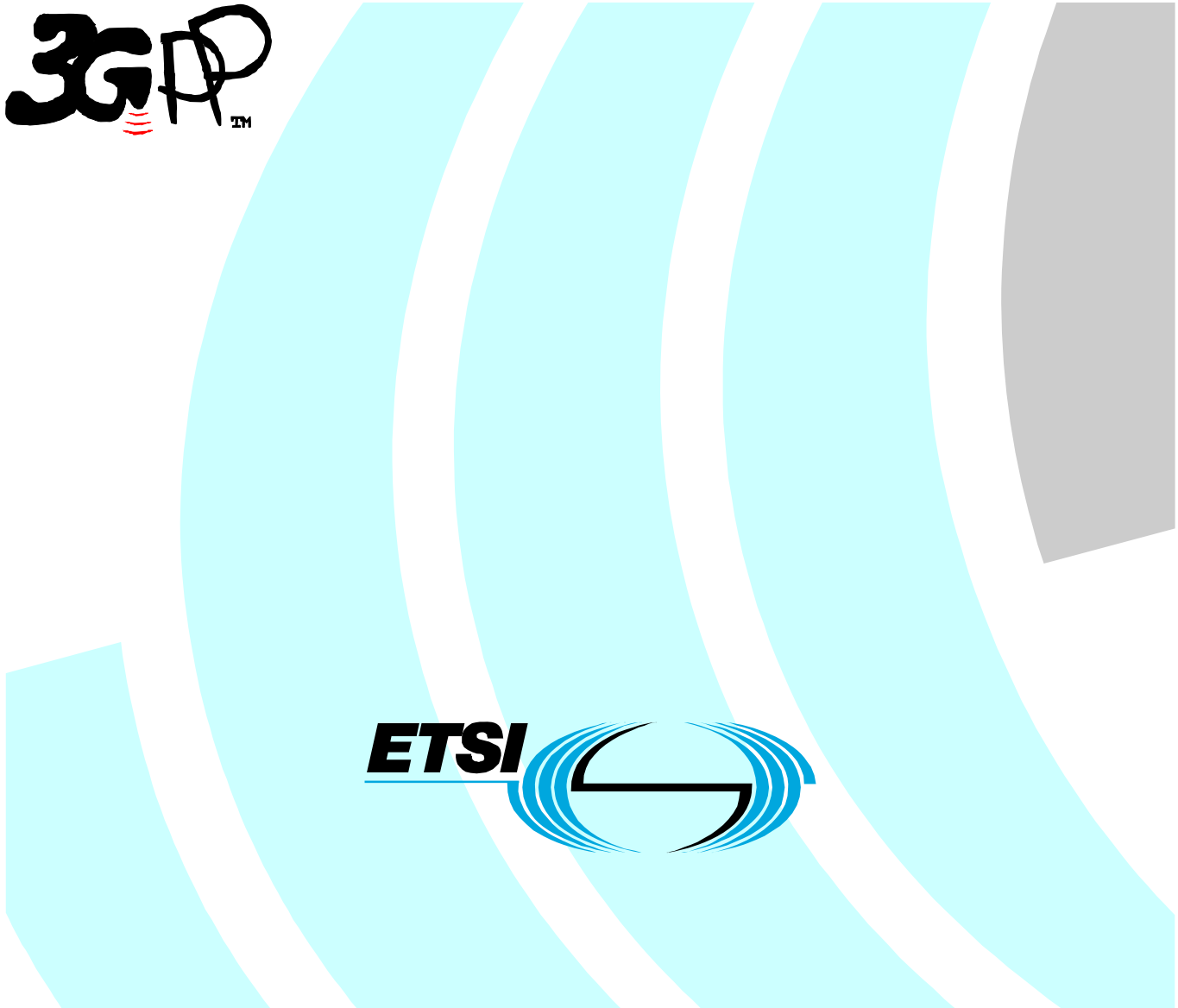
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Foreword

This Technical Specification has been produced by the 3GPP.

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of this TS, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

- x the first digit:
 - 1 presented to TSG for information;
 - 2 presented to TSG for approval;
 - 3 Indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

1 Scope

The present document specifies the radio network layer signalling protocol called Node B Application Part (NBAP) specification to be used for Control Plane over Iub Interface.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document.*

[1] 3GPP TS 25.401: "UTRAN Overall Description".

[2] 3GPP TS 25.426: "UTRAN Iur and Iub Interface Data Transport & Transport Signalling for DCH Data Streams".

[3] CCITT Recommendation X.731 (01/92): "Information Technology – Open Systems Interconnection – Systems Management: State Management function".

[4] 3GPP TS 25.215: "Physical layer – Measurements (FDD)".

[5] 3GPP TS 25.225: "Physical layer – Measurements (TDD)".

[6] 3GPP TS 25.430: "UTRAN Iub General Aspect and Principle".

[7] 3GPP TS 25.211: "Physical channels and mapping of transport channels onto physical channels (FDD)".

[8] 3GPP TS 25.212: "Multiplexing and channel coding (FDD)".

[9] 3GPP TS 25.213: "Spreading and modulation (FDD)".

[10] 3GPP TS 25.214: "Physical layer procedures (FDD)".

[11] ITU-T Recommendation X.691, (07/2002) "Information technology - ASN.1 encoding rules - Specification of Packed Encoding Rules (PER)".

[12] ITU-T Recommendation X.680, (07/2002) "Information Technology - Abstract Syntax Notation One (ASN.1):Specification of basic notation".

[13] ITU-T Recommendation X.681, (07/2002) "Information Technology - Abstract Syntax Notation One (ASN.1): Information object specification".

[14] 3GPP TS 25.104: "UTRA (BS) FDD; Radio Transmission and Reception".

[15] 3GPP TS 25.105: "UTRA (BS) TDD; Radio Transmission and Reception".

[16] 3GPP TS 25.427: "UTRAN Iur/Iub Interface User Plane Protocol for DCH Data Stream".

[17] 3GPP TS 25.402: "Synchronisation in UTRAN Stage2".

[18] 3GPP TS 25.331: "RRC Protocol Specification".

[19] 3GPP TS25.221: "Physical channels and mapping of transport channels onto physical channels[TDD]".

[20] 3GPP TS 25.223: "Spreading and modulation (TDD)".

[21] 3GPP TS 25.224: "Physical Layer Procedures (TDD)".

[22] 3GPP TS 25.133: "Requirements for support of Radio Resource management (FDD)".

[23] 3GPP TS 25.123: "Requirements for support of Radio Resource management (TDD)".

[24] 3GPP TS 25.435: "UTRAN Iub Interface: User Plane Protocols for Common Transport Channel Data Streams".

[25] 3GPP TS 25.302: "Services Provided by the Physical Layer".

[26] 3GPP TR 25.921: "Guidelines and Principles for Protocol Description and Error Handling".

[27] ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface".

[28] RTCM-SC104: "RTCM Recommended Standards for Differential GNSS Service (v.2.2)".

[29] IETF RFC 2460 "Internet Protocol, Version 6 (IPv6) Specification".

[30] IETF RFC 768 "User Datagram Protocol", (8/1980)

[31] 3GPP TS 25.434: "UTRAN Iub Interface Data Transport & Transport Signalling for Common Transport Channel Data Streams ".

[32] 3GPP TS 25.321: "MAC protocol specification".

[33] 3GPP TS 25.306: "UE Radio Access capabilities".

[34] 3GPP TS 25.222: "Multiplexing and Channel Coding (TDD)".

[35] IETF RFC 2474 "Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers".

[36] IETF RFC 2475 "An Architecture for Differentiated Services".

[37] 3GPP TS 25.304: "User Equipment (UE) procedures in idle mode and procedures for cell reselection in connected mode".

[38] 3GPP TS 25.319: "Enhanced Uplink; Overall description; Stage 2".

[39] Galileo OS Signal in Space ICD (OS SIS ICD), Draft 0, Galileo Joint Undertaking, May 23rd, 2006.

[40] 3GPP TR 25.905: "Feasibility study on improvement of the Multimedia Broadcast / Multicast Service (MBMS) in UTRAN"

[41] IETF RFC 3376 "Internet Group Management Protocol, Version 3".

[42] IETF RFC 3810 "Multicast Listener Discovery Version 2 (MLDv2) for IPv6".

3 Definitions, Symbols and Abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply.

CRNC Communication Context: The CRNC Communication Context contains the necessary information for the CRNC for communication with a specific UE. The CRNC Communication Context is identified by the CRNC Communication Context ID.

Elementary Procedure: The NBAP protocol consists of Elementary Procedures (EPs). An Elementary Procedure is a unit of interaction between the CRNC and the Node B.

An EP consists of an initiating message and possibly a response message.

Two kinds of EPs are used:

- **Class 1**: Elementary Procedures with response (success or failure).
- **Class 2**: Elementary Procedures without response.

For **Class 1** EPs, the types of responses can be as follows:

Successful

- A signalling message explicitly indicates that the elementary procedure has been successfully completed with the receipt of the response.

Unsuccessful

- A signalling message explicitly indicates that the EP failed.

Class 2 EPs are considered always successful.

Node B Communication Context: The Node B Communication Context contains the necessary information for the Node B for communication with a specific UE. The Node B Communication Context is created by the Radio Link Setup procedure and deleted by the Radio Link Deletion procedure when deleting the last Radio Link within the Node B Communication Context. The Node B Communication Context is identified by the Node B Communication Context ID.

Prepared Reconfiguration: A Prepared Reconfiguration exists when the Synchronised Radio Link Reconfiguration Preparation procedure has been completed successfully. The Prepared Reconfiguration does not exist anymore only after either of the procedures Synchronised Radio Link Reconfiguration Commit or Synchronised Radio Link Reconfiguration Cancellation has been completed. In particular, the Prepared Reconfiguration still exists if the object (e.g. Radio Link) concerned by the Synchronised Radio Link Reconfiguration (e.g. in the case of an HS-DSCH Setup) is removed, but the Node B Communication Context still exists.

3.2 Symbols

Void.

3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

A-GPS	Assisted GPS
AICH	Acquisition Indicator Channel
ALCAP	Access Link Control Application Part
ASN.1	Abstract Syntax Notation One
BCCH	Broadcast Control Channel
CCPCH	Common Control Physical Channel
CFN	Connection Frame Number
CM	Compressed Mode
CPICH	Common Pilot Channel
CRNC	Controlling Radio Network Controller
DCH	Dedicated Channel
DGPS	Differential GPS
DL	Downlink
DPCCH	Dedicated Physical Control Channel
DPCH	Dedicated Physical Channel
DPDCH	Dedicated Physical Data Channel
DSCH	Downlink Shared Channel
E-AGCH	E-DCH Absolute Grant Channel

E-DCH	Enhanced UL DCH
E-HICH	E-DCH HARQ Acknowledgement Indicator Channel
E-PUCH	Enhanced Uplink Physical Channel (TDD only)
E-RNTI	E-DCH RNTI
E-RUCCH	E-DCH Random Access Uplink Control Channel (TDD only)
E-TFCI	E-DCH Transport Format Combination Indicator
E-UCCH	E-DCH Uplink Control Channel (TDD only)
FACH	Forward Access Channel
FDD	Frequency Division Duplex
F-DPCH	Fractional DPCH
FP	Frame Protocol
FPACH	Fast Physical Access Channel (TDD only)
GANSS	Galileo and Additional Navigation Satellite Systems
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
HSDPA	High Speed Downlink Packet Access
HS-DSCH	High Speed Downlink Shared Channel
HS-PDSCH	High Speed Physical Downlink Shared Channel
HS-SCCH	High Speed Shared Control Channel
HS-SICH	High Speed Shared Information Channel
IP	Internet Protocol
IPDL	Idle Periods in the DownLink
ISCP	Interference Signal Code Power
L1	Layer 1
L2	Layer 2
MBMS	Multimedia Broadcast Multicast Service
MBSFN	MBMS over a Single Frequency Network
MFN	Multicast Frame Number
MIB	Master Information Block
MICH	MBMS Notification Indicator Channel
NBAP	Node B Application Part
NI	MBMS Notification Indicator
O&M	Operation and Maintenance
PCCPCH	Primary Common Control Physical Channel
PCH	Paging Channel
PDSCH	Physical Downlink Shared Channel
PICH	Paging Indication Channel
PLCCH	Physical Layer Common Control Channel
PUSCH	Physical Uplink Shared Channel
RACH	Random Access Channel
RL	Radio Link
RLS	Radio Link Set
RNC	Radio Network Controller
RRC	Radio Resource Control
SB	Scheduling Block
SCCPCH	Secondary Common Control Physical Channel
SCH	Synchronisation Channel
SCTD	Space Code Transmit Diversity
SIB	System Information Block
SRNC	Serving Radio Network Controller
STTD	Space Time Transmit Diversity
TDD	Time Division Duplex
TFC	Transport Format Combination
TFCI	Transport Format Combination Indicator
TFCS	Transport Format Combination Set
TFS	Transport Format Set
TPC	Transmit Power Control
TSTD	Time Switched Transmit Diversity
UARFCN	UTRA Absolute Radio Frequency Channel Number
UDP	User Datagram Protocol
UE	User Equipment
UL	Uplink

UMTS	Universal Mobile Telecommunications System
USCH	Uplink Shared Channel
UTRA	Universal Terrestrial Radio Access
UTRAN	Universal Terrestrial Radio Access Network

4 General

4.1 Procedure Specification Principles

The principle for specifying the procedure logic is to specify the functional behaviour of the Node B exactly and completely. The CRNC functional behaviour is left unspecified. The Reset procedure is an exception from this principle.

The following specification principles have been applied for the procedure text in subclause 8:

- The procedure text discriminates between:

 1) Functionality which "shall" be executed

 The procedure text indicates that the receiving node "shall" perform a certain function Y under a certain condition. If the receiving node supports procedure X but cannot perform functionality Y requested in the REQUEST message of a Class 1 EP, the receiving node shall respond with the message used to report unsuccessful outcome for this procedure, containing an appropriate cause value.

 2) Functionality which "shall, if supported" be executed

 The procedure text indicates that the receiving node "shall, if supported," perform a certain function Y under a certain condition. If the receiving node supports procedure X, but does not support functionality Y, the receiving node shall proceed with the execution of the EP, possibly informing the requesting node about the not supported functionality.

- Any required inclusion of an optional IE in a response message is explicitly indicated in the procedure text. If the procedure text does not explicitly indicate that an optional IE shall be included in a response message, the optional IE shall not be included. For requirements on including *Criticality Diagnostics* IE, see section 10. For examples on how to use the *Criticality Diagnostics* IE, see Annex C.

4.2 Forwards and Backwards Compatibility

The forwards and backwards compatibility of the protocol is assured by a mechanism in which all current and future messages, and IEs or groups of related IEs, include Id and criticality fields that are coded in a standard format that will not be changed in the future. These parts can always be decoded regardless of the standard version.

4.3 Specification Notations

For the purposes of the present document, the following notations apply:

[FDD] This tagging of a word indicates that the word preceding the tag "[FDD]" applies only to FDD. This tagging of a heading indicates that the heading preceding the tag "[FDD]" and the section following the heading applies only to FDD.

[TDD] This tagging of a word indicates that the word preceding the tag "[TDD]" applies only to TDD, including 3.84Mcps TDD and 1.28Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[TDD]" and the section following the heading applies only to TDD, including 3.84Mcps TDD and 1.28Mcps TDD.

[3.84Mcps TDD] This tagging of a word indicates that the word preceding the tag "[3.84Mcps TDD]" applies only to 3.84Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[3.84Mcps TDD]" and the section following the heading applies only to 3.84Mcps TDD.

[1.28Mcps TDD] This tagging of a word indicates that the word preceding the tag "[1.28Mcps TDD]" applies only to 1.28Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[1.28Mcps TDD]" and the section following the heading applies only to 1.28Mcps TDD.

[7.68Mcps TDD] This tagging of a word indicates that the word preceding the tag "[7.68Mcps TDD]" applies only to 7.68Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[7.68Mcps TDD]" and the section following the heading applies only to 7.68Mcps TDD.

[FDD - …] This tagging indicates that the enclosed text following the "[FDD - " applies only to FDD. Multiple sequential paragraphs applying only to FDD are enclosed separately to enable insertion of TDD specific (or common) paragraphs between the FDD specific paragraphs.

[TDD - …] This tagging indicates that the enclosed text following the "[TDD - " applies only to TDD, including 3.84Mcps TDD, 7.68Mcps TDD and 1.28Mcps TDD. Multiple sequential paragraphs applying only to TDD are enclosed separately to enable insertion of FDD specific (or common) paragraphs between the TDD specific paragraphs.

[3.84Mcps TDD - …] This tagging indicates that the enclosed text following the "[3.84Mcps TDD - " applies only to 3.84Mcps TDD. Multiple sequential paragraphs applying only to 3.84Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 3.84Mcps TDD specific paragraphs.

[1.28Mcps TDD - …] This tagging indicates that the enclosed text following the "[1.28Mcps TDD - " applies only to 1.28Mcps TDD. Multiple sequential paragraphs applying only to 1.28Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 1.28Mcps TDD specific paragraphs.

[7.68Mcps TDD - …] This tagging indicates that the enclosed text following the "[7.68Mcps TDD - " applies only to 7.68Mcps TDD. Multiple sequential paragraphs applying only to 7.68Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 7.68Mcps TDD specific paragraphs.

Procedure When referring to an elementary procedure in the specification the Procedure Name is written with the first letters in each word in upper case characters followed by the word "procedure", e.g. Radio Link Setup procedure.

Message When referring to a message in the specification the MESSAGE NAME is written with all letters in upper case characters followed by the word "message", e.g. RADIO LINK SETUP REQUEST message.

IE When referring to an information element (IE) in the specification the *Information Element Name* is written with the first letters in each word in upper case characters and all letters in Italic font followed by the abbreviation "IE", e.g. *Transport Format Set* IE.

Value of an IE When referring to the value of an information element (IE) in the specification the "Value" is written as it is specified in subclause 9.2 enclosed by quotation marks, e.g. "Abstract Syntax Error (Reject)".

5 NBAP Services

5.1 Parallel Transactions

Unless explicitly indicated in the procedure description, at any instance in time one protocol peer shall have a maximum of one ongoing dedicated NBAP procedure related to a certain Node B Communication Context.

6 Services Expected from Signalling Transport

NBAP requires an assured in-sequence delivery service from the signalling bearer, and notification if the assured in-sequence delivery service is no longer available.

7 Functions of NBAP

The NBAP protocol provides the following functions:

- Cell Configuration Management. This function gives the CRNC the possibility to manage the cell configuration information in a Node B.
- Common Transport Channel Management. This function gives the CRNC the possibility to manage the configuration of Common Transport Channels in a Node B.
- System Information Management. This function gives the CRNC the ability to manage the scheduling of System Information to be broadcast in a cell.
- Resource Event Management. This function gives the Node B the ability to inform the CRNC about the status of Node B resources.
- Configuration Alignment. This function gives the CRNC and the Node B the possibility to verify and enforce that both nodes have the same information on the configuration of the radio resources.
- Measurements on Common Resources. This function allows the CRNC to initiate measurements on common resources in the Node B. The function also allows the Node B to report the result of the measurements.
- Radio Link Management. This function allows the CRNC to manage radio links using dedicated resources in a Node B.
- Radio Link Supervision. This function allows the CRNC to report failures and restorations of a Radio Link.
- Compressed Mode Control [FDD]. This function allows the CRNC to control the usage of compressed mode in a Node B.
- Measurements on Dedicated Resources. This function allows the CRNC to initiate measurements on dedicated resources in the Node B. The function also allows the Node B to report the result of the measurements.
- DL Power Drifting Correction [FDD]. This function allows the CRNC to adjust the DL power level of one or more Radio Links in order to avoid DL power drifting between the Radio Links.
- Reporting of General Error Situations. This function allows reporting of general error situations, for which function specific error messages have not been defined.
- Physical Shared Channel Management. This function allows the CRNC to manage physical resources in the Node B belonging to High Speed Downlink Shared Channels and High Speed Shared Control Channels [TDD - and High Speed Shared Indication Channels and Shared Channels (USCH/DSCH)].
- DL Power Timeslot Correction [TDD]. This function enables the Node B to apply an individual offset to the transmission power in each timeslot according to the downlink interference level at the UE.
- Cell Synchronisation [1.28 Mcps TDD and 3.84 Mcps TDD]. This function allows the synchronisation of cells or Node Bs via the air interface.
- Information Exchange. This function allows the CRNC to initiate information provision from the Node B. The function also allows the Node B to report the requested information.
- Bearer Rearrangement. This function allows the Node B to indicate the need for bearer re-arrangement for a Node B Communication Context. The function also allows the CRNC to re-arrange bearers for a Node B Communication Context.
- MBMS Notification. This function allows the CRNC to send MBMS Notification indicators to the Node B to be broadcasted in a cell.

The mapping between the above functions and NBAP elementary procedures is shown in the table below.

Table 1: Mapping between functions and NBAP elementary procedures

Function	Elementary Procedure(s)
Cell Configuration Management	a) Cell Setup b) Cell Reconfiguration c) Cell Deletion
Common Transport Channel Management	a) Common Transport Channel Setup b) Common Transport Channel Reconfiguration c) Common Transport Channel Deletion
System Information Management	System Information Update
Resource Event Management	a) Block Resource b) Unblock Resource c) Resource Status Indication
Configuration Alignment	a) Audit Required b) Audit c) Reset
Measurements on Common Resources	a) Common Measurement Initiation b) Common Measurement Reporting c) Common Measurement Termination d) Common Measurement Failure
Radio Link Management.	a) Radio Link Setup b) Radio Link Addition c) Radio Link Deletion d) Unsynchronised Radio Link Reconfiguration e) Synchronised Radio Link Reconfiguration Preparation f) Synchronised Radio Link Reconfiguration Commit g) Synchronised Radio Link Reconfiguration Cancellation h) Radio Link Pre-emption i) Radio Link Activation j) Radio Link Parameter Update
Radio Link Supervision.	a) Radio Link Failure b) Radio Link Restoration
Compressed Mode Control [FDD]	a) Radio Link Setup b) Radio Link Addition c) Compressed Mode Command d) Unsynchronised Radio Link Reconfiguration e) Synchronised Radio Link Reconfiguration Preparation f) Synchronised Radio Link Reconfiguration Commit g) Synchronised Radio Link Reconfiguration Cancellation
Measurements on Dedicated Resources	a) Dedicated Measurement Initiation b) Dedicated Measurement Reporting c) Dedicated Measurement Termination d) Dedicated Measurement Failure
DL Power Drifting Correction [FDD]	Downlink Power Control
Reporting of General Error Situations	Error Indication
Physical Shared Channel Management	Physical Shared Channel Reconfiguration
DL Power Timeslot Correction [TDD]	Downlink Power Timeslot Control
Cell Synchronisation [1.28 Mcps TDD and 3.84 Mcps TDD]	a) Cell Synchronisation Initiation b) Cell Synchronisation Reconfiguration c) Cell Synchronisation Reporting d) Cell Synchronisation Termination e) Cell Synchronisation Failure f) Cell Synchronisation Adjustment
Information Exchange	a) Information Exchange Initiation b) Information Reporting c) Information Exchange Termination d) Information Exchange Failure

Function	Elementary Procedure(s)
Bearer Re-arrangement	a) Bearer Re-arrangement Indication b) Unsynchronised Radio Link Reconfiguration c) Synchronised Radio Link Reconfiguration Preparation d) Synchronised Radio Link Reconfiguration Commit e) Synchronised Radio Link Reconfiguration Cancellation
MBMS Notification	a) MBMS Notification Update

8 NBAP Procedures

8.1 Elementary Procedures

NBAP procedures are divided into common procedures and dedicated procedures.

- NBAP common procedures are procedures that request initiation of a Node B Communication Context for a specific UE in Node B or are not related to a specific UE. NBAP common procedures also incorporate logical O&M [1] procedures.

- NBAP dedicated procedures are procedures that are related to a specific Node B Communication Context in Node B. This Node B Communication Context is identified by a Node B Communication Context identity.

The two types of procedures may be carried on separate signalling links.

In the following tables, all EPs are divided into Class 1 and Class 2 EPs:

Table 2: Class 1

Elementary Procedure	Message	Successful Outcome	Unsuccessful Outcome
		Response message	Response message
Cell Setup	CELL SETUP REQUEST	CELL SETUP RESPONSE	CELL SETUP FAILURE
Cell Reconfiguration	CELL RECONFIGURATION REQUEST	CELL RECONFIGURATION RESPONSE	CELL RECONFIGURATION FAILURE
Cell Deletion	CELL DELETION REQUEST	CELL DELETION RESPONSE	
Common Transport Channel Setup	COMMON TRANSPORT CHANNEL SETUP REQUEST	COMMON TRANSPORT CHANNEL SETUP RESPONSE	COMMON TRANSPORT CHANNEL SETUP FAILURE
Common Transport Channel Reconfiguration	COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST	COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE	COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE
Common Transport Channel Deletion	COMMON TRANSPORT CHANNEL DELETION REQUEST	COMMON TRANSPORT CHANNEL DELETION RESPONSE	
Physical Shared Channel Reconfiguration	PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST	PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE	PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE
Audit	AUDIT REQUEST	AUDIT RESPONSE	AUDIT FAILURE
Block Resource	BLOCK RESOURCE REQUEST	BLOCK RESOURCE RESPONSE	BLOCK RESOURCE FAILURE
Radio Link Setup	RADIO LINK SETUP REQUEST	RADIO LINK SETUP RESPONSE	RADIO LINK SETUP FAILURE
System Information Update	SYSTEM INFORMATION UPDATE REQUEST	SYSTEM INFORMATION UPDATE RESPONSE	SYSTEM INFORMATION UPDATE FAILURE
Common Measurement Initiation	COMMON MEASUREMENT INITIATION REQUEST	COMMON MEASUREMENT INITIATION RESPONSE	COMMON MEASUREMENT INITIATION FAILURE
Radio Link Addition	RADIO LINK ADDITION REQUEST	RADIO LINK ADDITION RESPONSE	RADIO LINK ADDITION FAILURE
Radio Link Deletion	RADIO LINK DELETION REQUEST	RADIO LINK DELETION RESPONSE	
Synchronised Radio Link Reconfiguration Preparation	RADIO LINK RECONFIGURATION PREPARE	RADIO LINK RECONFIGURATION READY	RADIO LINK RECONFIGURATION FAILURE
Unsynchronised Radio Link Reconfiguration	RADIO LINK RECONFIGURATION REQUEST	RADIO LINK RECONFIGURATION RESPONSE	RADIO LINK RECONFIGURATION FAILURE
Dedicated Measurement Initiation	DEDICATED MEASUREMENT INITIATION REQUEST	DEDICATED MEASUREMENT INITIATION RESPONSE	DEDICATED MEASUREMENT INITIATION FAILURE
Reset	RESET REQUEST	RESET RESPONSE	
Cell Synchronisation Initiation [TDD]	CELL SYNCHRONISATION INITIATION REQUEST	CELL SYNCHRONISATION INITIATION RESPONSE	CELL SYNCHRONISATION INITIATION FAILURE
Cell Synchronisation Reconfiguration [TDD]	CELL SYNCHRONISATION RECONFIGURATION REQUEST	CELL SYNCHRONISATION RECONFIGURATION RESPONSE	CELL SYNCHRONISATION RECONFIGURATION FAILURE
Cell Synchronisation Adjustment [TDD]	CELL SYNCHRONISATION ADJUSTMENT REQUEST	CELL SYNCHRONISATION ADJUSTMENT RESPONSE	CELL SYNCHRONISATION ADJUSTMENT FAILURE
Information Exchange Initiation	INFORMATION EXCHANGE INITIATION REQUEST	INFORMATION EXCHANGE INITIATION RESPONSE	INFORMATION EXCHANGE INITIATION FAILURE

Table 3: Class 2

Elementary Procedure	Message
Resource Status Indication	RESOURCE STATUS INDICATION
Audit Required	AUDIT REQUIRED INDICATION
Common Measurement Reporting	COMMON MEASUREMENT REPORT
Common Measurement Termination	COMMON MEASUREMENT TERMINATION REQUEST
Common Measurement Failure	COMMON MEASUREMENT FAILURE INDICATION
Synchronised Radio Link Reconfiguration Commit	RADIO LINK RECONFIGURATION COMMIT
Synchronised Radio Link Reconfiguration Cancellation	RADIO LINK RECONFIGURATION CANCEL
Radio Link Failure	RADIO LINK FAILURE INDICATION
Radio Link Restoration	RADIO LINK RESTORE INDICATION
Dedicated Measurement Reporting	DEDICATED MEASUREMENT REPORT
Dedicated Measurement Termination	DEDICATED MEASUREMENT TERMINATION REQUEST
Dedicated Measurement Failure	DEDICATED MEASUREMENT FAILURE INDICATION
Downlink Power Control [FDD]	DL POWER CONTROL REQUEST
Compressed Mode Command [FDD]	COMPRESSED MODE COMMAND
Unblock Resource	UNBLOCK RESOURCE INDICATION
Error Indication	ERROR INDICATION
Downlink Power Timeslot Control [TDD]	DL POWER TIMESLOT CONTROL REQUEST
Radio Link Pre-emption	RADIO LINK PREEMPTION REQUIRED INDICATION
Cell Synchronisation Reporting [TDD]	CELL SYNCHRONISATION REPORT
Cell Synchronisation Termination [TDD]	CELL SYNCHRONISATION TERMINATION REQUEST
Cell Synchronisation Failure [TDD]	CELL SYNCHRONISATION FAILURE INDICATION
Information Reporting	INFORMATION REPORT
Information Exchange Termination	INFORMATION EXCHANGE TERMINATION REQUEST
Information Exchange Failure	INFORMATION EXCHANGE FAILURE INDICATION
Bearer Re-arrangement	BEARER REARRANGEMENT INDICATION
Radio Link Activation	RADIO LINK ACTIVATION COMMAND
Radio Link Parameter Update	RADIO LINK PARAMETER UPDATE INDICATION
MBMS Notification Update	MBMS NOTIFICATION UPDATE COMMAND

8.2 NBAP Common Procedures

8.2.1 Common Transport Channel Setup

8.2.1.1 General

This procedure is used for establishing the necessary resources in Node B, regarding Secondary CCPCH, PICH, PRACH, AICH [FDD], FACH, PCH, MICH, RACH, E-RUCCH [3.84 Mcps and 7.68 Mcps TDD], PLCCH [1.28Mcps TDD] and FPACH [1.28Mcps TDD].

8.2.1.2 Successful Operation

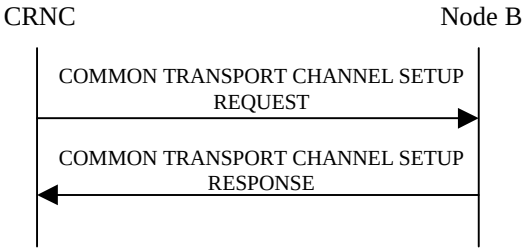


Figure 1: Common Transport Channel Setup procedure, Successful Operation

The procedure is initiated with a COMMON TRANSPORT CHANNEL SETUP REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

One message can configure only one of the following combinations:

- [FDD - one Secondary CCPCH, and FACHs, PCH, PICH and MICH related to that Secondary CCPCH], or
- [TDD - one CCTrCH consisting of Secondary CCPCHs and FACHs, PCH with the corresponding PICH and MICH related to that group of Secondary CCPCHs], or
- one [1.28Mcps TDD - or more] PRACH, one RACH and one AICH [FDD] and one FPACH[1.28Mcps TDD] related to that PRACH, or
- one PLCCH [1.28Mcps TDD], or
- one E-RUCCH [3.84Mcps TDD and 7.68Mcps TDD].

Secondary CCPCH:

[FDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Secondary CCPCH* IE, the Node B shall configure and activate the indicated Secondary CCPCH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.]

[FDD - If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *FDD S-CCPCH Frame Offset* IE within the *Secondary CCPCH* IE, the Node B shall apply the indicated frame offset for the concerned Secondary CCPCH.]

[TDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Secondary CCPCH* IE, the Node B shall configure and activate the indicated Secondary CCPCH(s) according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.]

[3.84Mcps TDD and 7.68Mcps TDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *TFCI Presence* IE, the Node B shall apply the indicated TFCI presence in the timeslot of the S-CCPCH. If all the S-CCPCHs defined in a timeslot do not have a *TFCI Presence* IE included, the Node B shall apply a TFCI field in the lowest numbered S-CCPCH of the timeslot.]

[TDD - FACHs and PCH may be mapped onto a CCTrCH which may consist of several Secondary CCPCHs]

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *FACH Parameters* IE, the Node B shall configure and activate the indicated FACH(s) according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *PCH Parameters* IE, the Node B shall configure and activate the concerned PCH and the associated PICH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

[1.28Mcps TDD - If the *PCH Power* IE is included in the *PCH Parameters* IE of the COMMON TRANSPORT CHANNEL SETUP REQUEST, the Node B shall use this value as the power at which the PCH shall be transmitted.]

[TDD - If the *TSTD Indicator* IE for the S-CCPCH is included and is set to "active" in the COMMON TRANSPORT CHANNEL SETUP REQUEST, the Node B shall activate TSTD diversity for all S-CCPCHs defined in the message

that are not beacon channels [19,21]. If the *TSTD Indicator* IE is not included or is set to "not active" in the COMMON TRANSPORT CHANNEL SETUP REQUEST, the Node B shall not activate TSTD diversity for the S-CCPCHs defined in the message.]

[1.28Mcps TDD - If the *TSTD Indicator* IE for the PICH is included and is set to "active" in the COMMON TRANSPORT CHANNEL SETUP REQUEST message, the Node B shall activate TSTD diversity for the PICH if it is not a beacon channel [19,21]. If the *TSTD Indicator* IE is set to "not active" or the *TSTD Indicator* IE is not included for the PICH in the COMMON TRANSPORT CHANNEL SETUP REQUEST message, the Node B shall not activate TSTD diversity for the PICH.]

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *MICH Parameters* IE, the Node B shall configure and activate the concerned MICH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

[FDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Modulation Power Offset* IE, in the *Secondary CCPCH* IE, the Node B shall apply the indicated modulation, and power offset in case of 16QAM, for the concerned Secondary CCPCH.]

[FDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Extended Secondary CCPCH Slot Format* IE, in the *Secondary CCPCH* IE, the Node B shall ignore the *Secondary CCPCH Slot Format* IE and apply the slot format indicated in the *Extended Secondary CCPCH Slot Format* IE.]

[3.84Mcps TDD and 7.68Mcps TDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Modulation* IE, the Node B shall apply the indicated modulation for the CCTrCH.]

[3.84Mcps TDD and 7.68Mcps TDD - If a timeslot has been configured for MBSFN operation then the contents of the [3.84Mcps TDD - *Midamble Shift and Burst Type* IE] [7.68Mcps TDD - *Midamble Shift and Burst Type 7.68Mcps* IE] shall be ignored and burst type 4, Kcell=1 shall be used [19].]

[1.28 Mcps TDD - If the cell is operating in MBSFN only mode, the *MBSFN Special Time Slot LCR* IE indicates from CRNC to the Node B whether the channel is deployed on the MBSFN Special Time Slot for MBSFN only mode [19].]

[1.28Mcps TDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *UARFCN* IE in the *Secondary CCPCHs* IE, this Secondary CCPCH providing MBMS service in non-MBSFN only mode shall be setup on the secondary frequency indicated by the *UARFCN* IE.]

PRACH:

When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *PRACH* IE, the Node B shall configure and activate the indicated PRACH and the associated RACH [FDD - and the associated AICH] according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

[1.28Mcps TDD - The resource indicated by the *PRACH* IE is used for RACH random access as well as E-DCH random access. The way to differentiate the two access type on PRACH physical resource shall be operated according to [21].]

[1.28Mcps TDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *UARFCN* IE in the *PRACH* IE, the PRACH shall be set up on the secondary frequency indicated by the *UARFCN* IE.]

[1.28Mcps TDD - FPACH]:

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *FPACH* IE, the Node B shall configure and activate the indicated FPACH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

Where more than one FPACH is defined, the FPACH that Node B should use is defined by the UpPCH signature (SYNC_UL) code that the UE used. The FPACH number = N mod M where N denotes the signature number (0..7) and M denotes the number of FPACHs that are defined in a cell. The FPACH number is in ascending order by *Common Physical Channel ID* IE contained in the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

If the *FPACH* IE contains the *UARFCN* IE, the FPACH shall be set up on the secondary frequency indicated by the *UARFCN* IE.

[1.28Mcps TDD - PLCCH]:

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *PLCCH* IE, the Node B shall configure and activate the indicated PLCCH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message when one or more of the PLCCH sequence numbers have been assigned to one or more radio links.]

[3.84Mcps TDD and 7.68Mcps TDD - E-RUCCH]:

When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the [3.84Mcps TDD - *E-RUCCH* IE] [7.68Mcps TDD - *E-RUCCH 7.68Mcps* IE], the Node B shall configure and activate the indicated E-RUCCH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

RACH, FACH and PCH:

If the *TNL QoS* IE is included for a RACH, FACH or PCH and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related RACH, FACH or PCH.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Broadcast Reference* IE in the *FACH Parameters* IE, and one or more established FACH common transport channels with the same Broadcast Reference, the same Transport Format Set, the same ToAWS and the same ToAWE exist (all of them in other distinct cells within the Node B), the Node B may include the *Broadcast Common Transport Bearer Indication* IE in the *Common Transport Channel Information Response* IE in the COMMON TRANSPORT CHANNEL SETUP RESPONSE message to inform the CRNC that the existing transport bearer, identified by *Broadcast Common Transport Bearer Indication* IE, shall be used instead of establishing a new transport bearer.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Broadcast Reference* IE in the *FACH Parameters* IE and no common transport channel with the same Broadcast Reference, the same Transport Format Set, the same ToAWS and the same ToAWE exists in another cell within the Node B, or if the Node B decides to establish a new transport bearer, the Node B may store the value of *Broadcast Reference* IE.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *IP Multicast Indication* IE, and if supported, the Node B may join the indicated IP multicast group if it has not done so yet ([41] in case of IPv4, [42] in case of IPv6). If the Node B does join the IP multicast group, or is already joined to the IP multicast group as a result of a previous procedure, the Node B shall include the *IP Multicast Data Bearer Indication* IE in the COMMON TRANSPORT CHANNEL INFORMATION RESPONSE message to inform the CRNC that the existing IP multicast transport bearer, identified by *IP Multicast Indication* IE in the corresponding COMMON TRANSPORT CHANNEL SETUP REQUEST message, shall be used instead of using a IP unicast transport bearer. If the COMMON TRANSPORT CHANNEL INFORMATION RESPONSE message does not contain the *IP Multicast Data Bearer Indication* IE, the CRNC shall send FACH data frames on the IP unicast transport bearer. No matter whether the Node B has joined the indicated IP multicast group, a new transport bearer shall be established using the *Transport Layer Address* IE and *Binding ID* IE and FACH specific control frames, e.g. TIMING ADJUSTMENT, shall be sent on the established Iub transport bearer.

General:

After successfully configuring the requested common transport channels and the common physical channels, the Node B shall store the value of *Configuration Generation ID* IE and it shall respond with the COMMON TRANSPORT CHANNEL SETUP RESPONSE message with the *Common Transport Channel ID* IE, the *Binding ID* IE (if no *Broadcast Common Transport Bearer Indication* IE is included) and the *Transport Layer Address* IE (if no *Broadcast Common Transport Bearer Indication* IE is included) for the configured common transport channels.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message includes the *Transport Layer Address* and *Binding ID* IEs, the Node B may use the transport layer adress and the binding identifier received from the CRNC when establishing a transport bearer for the indicated common transport channels.

After a successful procedure and once the transport bearers are established, the configured common transport channels and the common physical channels shall adopt the state Enabled [6] in the Node B and the common physical channels exist on the Uu interface.

8.2.1.3 Unsuccessful Operation

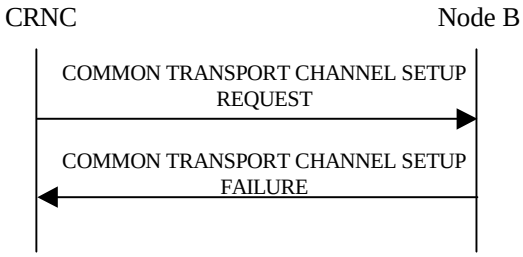


Figure 2: Common Transport Channel Setup procedure, Unsuccessful Operation

If the Node B is not able to support all or part of the configuration, it shall reject the configuration of all the channels in the COMMON TRANSPORT CHANNEL SETUP REQUEST message. The channels in the COMMON TRANSPORT CHANNEL SETUP REQUEST message shall remain in the same state as prior to the procedure. The *Cause* IE shall be set to an appropriate value. The value of *Configuration Generation ID* IE from the COMMON TRANSPORT CHANNEL SETUP REQUEST message shall not be stored.

If the configuration was unsuccessful, the Node B shall respond with a COMMON TRANSPORT CHANNEL SETUP FAILURE message.

Typical cause values are as follows:

Radio Network Layer Cause:

- Cell not available
- Power level not supported
- Node B Resources unavailable
- Requested Tx Diversity Mode not supported
- UL SF not supported
- DL SF not supported
- Common Transport Channel Type not supported
- MICH not supported

Transport Layer Cause:

- Transport Resources Unavailable

Miscellaneous Cause:

- O&M Intervention
- Control processing overload
- HW failure

8.2.1.4 Abnormal Conditions

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Secondary CCPCH* IE, and that IE contains [FDD - neither the *FACH Parameters* IE nor the *PCH Parameters* IE] [TDD - neither the *FACH* IE nor the *PCH* IE], the Node B shall reject the procedure using the COMMON TRANSPORT CHANNEL SETUP FAILURE message.

[TDD - If the *FACH CCTrCH Id* IE or the *PCH CCTrCH Id* IE does not equal the *SCCPCH CCTrCH Id* IE, the Node B shall regard the Common Transport Channel Setup procedure as having failed and the Node B shall send the COMMON TRANSPORT CHANNEL SETUP FAILURE message to the CRNC.]

[TDD - If the *TDD Physical Channel Offset* IE, the *Repetition Period* IE, and the *Repetition Length* IE are not equal for each SCCPCH configured within the CCTrCH or the *TFCI Presence* IE are not equal for any two SCCPCHs configured in the same timeslot, the Node B shall regard the Common Transport Channel Setup procedure as having failed and the Node B shall send the COMMON TRANSPORT CHANNEL SETUP FAILURE message to the CRNC.]

[1.28Mcps TDD - If the *Common Transport Channel ID* IE, and the *Transport Format Set* IE are not equal for each RACH configured in PRACH, the Node B shall regard the Common Transport Channel Setup procedure as having failed and the Node B shall send the COMMON TRANSPORT CHANNEL SETUP FAILURE message to the CRNC.]

[1.28Mcps TDD - If the *UARFCN* IE in the *PRACH LCR* IE is not equal to the *UARFCN* IE in any other *PRACH LCR* IE configured on one RACH, or if the *UARFCN* IE in *PRACH LCR* IE is not equal to the *UARFCN* IE in *FPACH* IE, the Node B shall regard the Common Transport Channel Setup procedure as having failed and the Node B shall send the COMMON TRANSPORT CHANNEL SETUP FAILURE message to the CRNC.]

If the state is already Enabled or Disabled [6] for at least one channel in the COMMON TRANSPORT CHANNEL SETUP REQUEST message which is received, the Node B shall reject the configuration of all channels with the *Cause* IE set to "Message not compatible with receiver state".

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport channel intended to be established, the Node B shall reject the procedure using the COMMON TRANSPORT CHANNEL SETUP FAILURE message.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *MICH Parameters* IE but not the *FACH Parameters* IE [FDD - for one S-CCPCH], the Node B shall reject the procedure using the COMMON TRANSPORT CHANNEL SETUP FAILURE message.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains a *Broadcast Reference* IE value already associated to an existing FACH in the same cell, or if the message contains the same value for the *Broadcast Reference* IEs included in the *FACH Parameters* IEs for several FACHs in the list of FACHs defined on the Secondary CCPCH, the Node B shall reject the procedure, using the COMMON TRANSPORT CHANNEL SETUP FAILURE message.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains both the *Broadcast Reference* IE and the *IP Multicast Indication* IE, the Node B shall reject the procedure using the COMMON TRANSPORT CHANNEL SETUP FAILURE message.

8.2.2 Common Transport Channel Reconfiguration

8.2.2.1 General

This procedure is used for reconfiguring common transport channels and/or common physical channels, while they still might be in operation.

8.2.2.2 Successful Operation

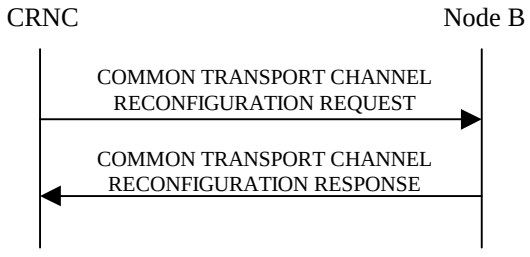


Figure 3: Common Transport Channel Reconfiguration, Successful Operation

The procedure is initiated with a COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

One message can configure only one of the following combinations:

- [FDD - FACHs, one PCH, one PICH and/or one MICH related to one Secondary CCPCH], or

- [TDD - one CCTrCH consisting of Secondary CCPCHs and FACHs, PCH with the corresponding PICH and MICH related to that group of Secondary CCPCHs], or
- one RACH and/or one AICH[FDD] and/or one FPACH[1.28Mcps TDD] related to one PRACH,or
- [1.28Mcps TDD - One UpPCH].

SCCPCH:

[TDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *SCCPCH Power* IE, the Node B shall reconfigure the maximum power that the indicated S-CCPCH shall use.]

FACH:

If the *FACH Parameters* IE is present, the Node B shall reconfigure the indicated FACH(s).

[FDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Max FACH Power* IE, the Node B shall reconfigure the maximum power that the indicated FACH may use.]

[1.28Mcps TDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Max FACH Power* IE, the Node B shall reconfigure the maximum power that the indicated FACH may use.]

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWS* IE, the Node B shall reconfigure the time of arrival window startpoint that the indicated FACH shall use. In case a transport bearer is used by several FACH channels in different cells, the reconfiguration of the time of arrival window startpoint requested in one cell shall be applied to all these FACH channels.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWE* IE, the Node B shall reconfigure the time of arrival window endpoint that the indicated FACH shall use. In case a transport bearer is used by several FACH channels in different cells, the reconfiguration of the time of arrival window endpoint requested in one cell shall be applied to all these FACH channels.

If the *TNL QoS* IE is included and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related FACH.

PCH:

If the *PCH Parameters* IE is present, the Node B shall reconfigure the indicated PCH.

[FDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *PCH Power* IE, the Node B shall reconfigure the power that the PCH shall use.]

[1.28Mcps TDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *PCH Power* IE, the Node B shall reconfigure the power that the PCH shall use.]

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWS* IE, the Node B shall reconfigure the time of arrival window startpoint that the PCH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWE* IE, the Node B shall reconfigure the time of arrival window endpoint that the PCH shall use.

If the *TNL QoS* IE is included and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related PCH.

PICH:

If the *PICH Parameters* IE is present, the Node B shall reconfigure the indicated PICH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *PICH Power* IE, the Node B shall reconfigure the power that the PICH shall use.

MICH:

If the *MICH Parameters* IE is present, the Node B shall reconfigure the MICH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *MICH Power* IE, the Node B shall reconfigure the power that the MICH shall use.

[FDD - PRACH]:

If the *PRACH Parameters* IE is present, the Node B shall reconfigure the indicated PRACH(s).

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Preamble Signatures* IE, the Node B shall reconfigure the preamble signatures that the indicated PRACH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Allowed Slot Format Information* IE, the Node B shall reconfigure the slot formats that the indicated PRACH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *RACH Sub Channel Numbers* IE, the Node B shall reconfigure the sub channel numbers that the indicated PRACH shall use.

If the *TNL QoS* IE is included and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related RACH.

[FDD - AICH]:

If the *AICH Parameters* IE is present, the Node B shall reconfigure the indicated AICH(s).

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *AICH Power* IE, the Node B shall reconfigure the power that the indicated AICH shall use.

[1.28Mcps TDD - FPACH]:

If the *FPACH Parameters* IE is included, the Node B shall reconfigure the indicated FPACH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Max FPACH Power* IE, the Node B shall reconfigure the power that the FPACH shall use.

[1.28Mcps TDD - UpPCH]:

If the *UpPCH Parameters* IE is included, the Node B shall reconfigure the position of the UpPCH.

For a multi-frequency cell:

- If the *UpPCH Position LCR* IE and the *UARFCN* IE are included, and the indicated frequency is primary frequency, the Node B shall reconfigure the position of the UpPCH on the primary frequency.
- If the *UpPCH Position LCR* IE and the *UARFCN* IE are included, and the indicated frequency is a secondary frequency, the Node B shall configure or reconfigure the position of the UpPCH on the secondary frequency.
- If the *UpPCH Position LCR* IE is not included, the Node B may delete the UpPCH on the secondary frequency indicated by the *UARFCN* IE.

[1.28Mcps TDD - PLCCH]:

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Max PLCCH Power* IE, the Node B shall reconfigure the power that the PLCCH shall use.

General:

After a successful procedure, the channels will have adopted the new configuration in the Node B. The channels in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message shall remain in the same state as prior to the procedure. The Node B shall store the value of *Configuration Generation ID* IE and the Node B shall respond with the COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE message.

8.2.2.3 Unsuccessful Operation

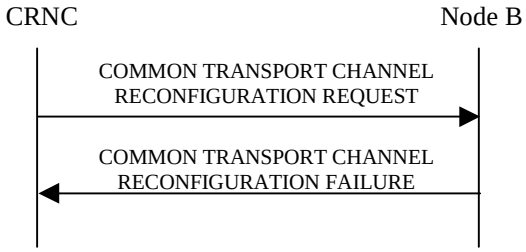


Figure 4: Common Transport Channel Reconfiguration procedure, Unsuccessful Operation

If the Node B is not able to support all or part of the configuration, it shall reject the configuration of all the channels in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message. The channels in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message shall remain in the same state as prior to the procedure. The *Cause* IE shall be set to an appropriate value. The value of *Configuration Generation ID* IE from the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message shall not be stored.

If the configuration was unsuccessful, the Node B shall respond with the COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE message.

Typical cause values are as follows:

Radio Network Layer Cause:

- Cell not available
- Power level not supported
- Node B Resources unavailable

Transport Layer Cause:

- Transport Resources Unavailable

Miscellaneous Cause:

- O&M Intervention
- Control processing overload
- HW failure

8.2.2.4 Abnormal Conditions

[1.28Mcps TDD - For a single frequency cell, if the *UpPCH Parameters* IE is included in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message but the *UpPCH Position LCR* IE is not present, the Node B shall reject the procedure by sending a COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE message.]

[1.28Mcps TDD - For a single frequency cell, if the *UARFCN* IE is included in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message, the Node B shall reject the procedure by sending a COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE message.]

[1.28Mcps TDD - For a multi-frequency cell, if the *UpPCH Parameters* IE is included in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message but the *UpPCH Position LCR* IE is not present,and the frequency indicated by the *UARFCN* IE is primary frequency, the Node B shall reject the procedure by sending a COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE message.]

[1.28Mcps TDD - For a multi-frequency cell, if the *UpPCH Parameters* IE is included in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message but the *UpPCH Position LCR* IE is not present,and the frequency indicated by the *UARFCN* IE is secondary frequency on which the UpPCH is not configured, the Node B

shall reject the procedure by sending a COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE message.]

8.2.3 Common Transport Channel Deletion

8.2.3.1 General

This procedure is used for deleting common physical channels and common transport channels.

8.2.3.2 Successful Operation

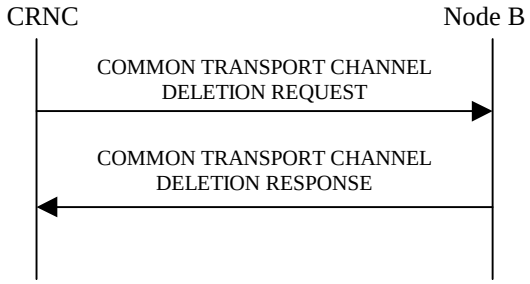


Figure 5: Common Transport Channel Deletion procedure, Successful Operation

The procedure is initiated with a COMMON TRANSPORT CHANNEL DELETION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Secondary CCPCH:

If the *Common Physical Channel ID* IE or *Common Physical Channel ID 7.68Mcps* IE contained in the COMMON TRANSPORT CHANNEL DELETION REQUEST message indicates a Secondary CCPCH, the Node B shall delete the indicated channel and the FACHs and PCH supported by that Secondary CCPCH. If there is a PCH that is deleted, the PICH associated with that PCH shall also be deleted. If an S-CCPCH is deleted, the MICH associated with that S-CCPCH shall also be deleted.

If the *Common Physical Channel ID* IE or *Common Physical Channel ID 7.68Mcps* IE contained in the COMMON TRANSPORT CHANNEL DELETION REQUEST message indicates a common transport channel that is sharing a common transport bearer with other one or several common transport channels, the Node B shall delete the indicated channel but keep the common transport bearer which is shared by the remaining common transport channel(s).

If the *Common Physical Channel ID* IE or *Common Physical Channel ID 7.68Mcps* IE contained in the COMMON TRANSPORT CHANNEL DELETION REQUEST message indicates a common transport channel which is using an IP multicast transport bearer, the Node B shall leave the IP multicast group if this channel is the last one in the group ([41] in case of IPv4, [42] in case of IPv6).

PRACH:

If the *Common Physical Channel ID* IE contained in the COMMON TRANSPORT CHANNEL DELETION REQUEST message indicates a PRACH, the Node B shall delete the indicated channel and the RACH supported by the PRACH. [FDD - The AICH associated with the RACH shall also be deleted.]

[1.28Mcps TDD PLCCH:

If the *Common Physical Channel ID* IE contained in the COMMON TRANSPORT CHANNEL DELETION REQUEST message indicates a PLCCH, the Node B shall delete the indicated channel.]

General:

[TDD - If the requested common physical channel is a part of a CCTrCH, all common transport channels and all common physical channels associated with this CCTrCH shall be deleted.]

After a successful procedure, the channels are deleted in the Node B. The channels in the COMMON TRANSPORT CHANNEL DELETION REQUEST message shall be set to state Not Existing ref. [6]. The Node B shall store the

received value of the *Configuration Generation ID* IE and respond with the COMMON TRANSPORT CHANNEL DELETION RESPONSE message.

8.2.3.3 Unsuccessful Operation

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8.2.3.4 Abnormal Conditions

If the C-ID in the COMMON TRANSPORT CHANNEL DELETION REQUEST message is not existing in the Node B or the Common Physical Channel ID does not exist in the Cell, the Node B shall respond with the COMMON TRANSPORT CHANNEL DELETION RESPONSE message.

8.2.4 Block Resource

8.2.4.1 General

The Node B initiates this procedure to request the CRNC to prohibit the usage of the specified logical resources.

The logical resource that can be blocked is a cell.

8.2.4.2 Successful Operation

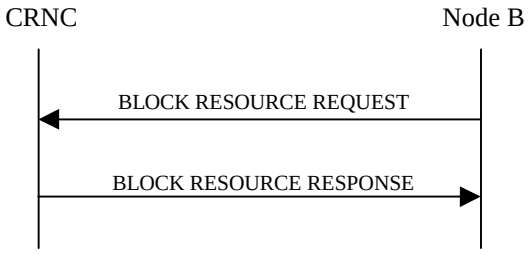


Figure 6: Block Resource procedure, Successful Operation

The procedure is initiated with a BLOCK RESOURCE REQUEST message sent from the Node B to the CRNC using the Node B Control Port.

Upon reception of the BLOCK RESOURCE REQUEST message, the CRNC shall prohibit the use of the indicated logical resources according to the *Blocking Priority Indicator* IE.

If the *Blocking Priority Indicator* IE in the BLOCK RESOURCE REQUEST message indicates "High Priority", the CRNC shall prohibit the use of the logical resources immediately.

If the *Blocking Priority Indicator* IE in the BLOCK RESOURCE REQUEST message indicates "Normal Priority", the CRNC shall prohibit the use of the logical resources if the resources are idle or immediately upon expiry of the shutdown timer specified by the *Shutdown Timer* IE in the BLOCK RESOURCE REQUEST message. New traffic shall not be allowed to use the logical resources while the CRNC waits for the resources to become idle and once the resources are blocked.

If the *Blocking Priority Indicator* IE in the BLOCK RESOURCE REQUEST message indicates "Low Priority", the CRNC shall prohibit the use of the logical resources when the resources become idle. New traffic shall not be allowed to use the logical resources while the CRNC waits for the resources to become idle and once the resources are blocked.

If the resources are successfully blocked, the CRNC shall respond with a BLOCK RESOURCE RESPONSE message. Upon reception of the BLOCK RESOURCE RESPONSE message, the Node B may disable [3.84Mcps TDD - SCH], [FDD - the Primary SCH, the Secondary SCH, the Primary CPICH, if present the Secondary CPICH(s)], [1.28Mcps TDD - DwPCH] and the Primary CCPCH. The other logical resources in the cell shall be considered as blocked.

Reconfiguration of logical resources and change of System Information can be done, even when the logical resources are blocked.

Interactions with the Unblock Resource procedure:

If the UNBLOCK RESOURCE INDICATION message is received by the CRNC while a Block Resource procedure on the same logical resources is in progress, the CRNC shall cancel the Block Resource procedure and proceed with the Unblock Resource procedure.

If the BLOCK RESOURCE RESPONSE message or the BLOCK RESOURCE FAILURE message is received by the Node B after the Node B has initiated an Unblock Resource procedure on the same logical resources as the ongoing Block Resource procedure, the Node B shall ignore the response to the Block Resource procedure.

8.2.4.3 Unsuccessful Operation

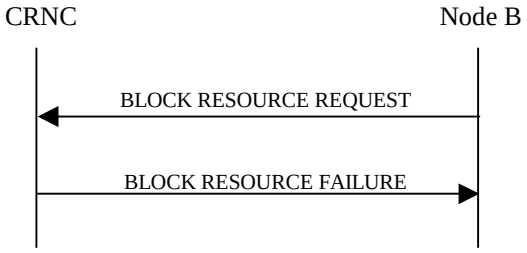


Figure 7: Block Resource procedure, Unsuccessful Operation

The CRNC may reject the request to block the logical resources, in which case the logical resources will remain unaffected and the CRNC shall respond to the Node B with the BLOCK RESOURCE FAILURE message. Upon reception of the BLOCK RESOURCE FAILURE message, the Node B shall leave the logical resources in the state that they were in prior to the start of the Block Resource procedure.

Typical cause values are as follows:

Miscellaneous Cause:

- O&M Intervention
- Control processing overload
- HW failure

Radio Network Layer Cause:

- Priority transport channel established

8.2.4.4 Abnormal Conditions

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8.2.5 Unblock Resource

8.2.5.1 General

The Node B initiates this procedure to indicate to the CRNC that logical resources are now unblocked.

The logical resource that can be unblocked is a cell.

8.2.5.2 Successful Operation

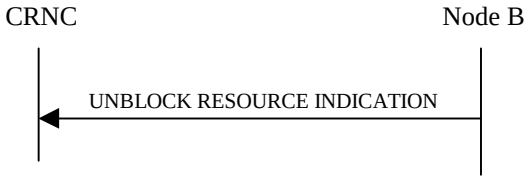


Figure 8: Unblock Resource procedure, Successful Operation

The procedure is initiated with an UNBLOCK RESOURCE INDICATION message sent from the Node B to the CRNC using the Node B Control Port. The Node B shall enable [3.84Mcps TDD - SCH], [FDD - the Primary SCH, the Secondary SCH, the Primary CPICH, the Secondary CPICH(s) (if present)], [1.28Mcps TDD - DwPCH] and the Primary CCPCH that had been disabled due to the preceding Block Resource procedure before sending the UNBLOCK RESOURCE INDICATION message. Upon reception of the UNBLOCK RESOURCE INDICATION message, the CRNC may permit the use of the logical resources.

All physical channels and transport channels associated to the cell that is unblocked are also unblocked.

8.2.5.3 Abnormal Conditions

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8.2.6 Audit Required

8.2.6.1 General

The Node B initiates this procedure to request the CRNC to perform an audit of the logical resources at the Node B. This procedure is used to indicate a possible misalignment of state or configuration information.

8.2.6.2 Successful Operation

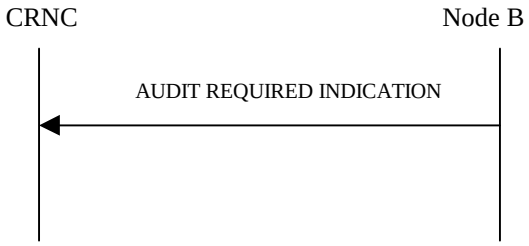


Figure 9: Audit Required procedure, Successful Operation

The procedure is initiated with an AUDIT REQUIRED INDICATION message sent from the Node B to the CRNC using the Node B Control Port.

If the Node B cannot ensure alignment of the state or configuration information, it should initiate the Audit Required procedure.

Upon receipt of the AUDIT REQUIRED INDICATION message, the CRNC should initiate the Audit procedure.

8.2.6.3 Abnormal Conditions

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8.2.7 Audit

8.2.7.1 General

This procedure is executed by the CRNC to perform an audit of the configuration and status of the logical resources in the Node B. A complete audit of a Node B is performed by one or more Audit procedures, together performing an audit sequence. The audit may cause the CRNC to re-synchronise the Node B to the status of logical resources known by the CRNC, that the Node B can support.

8.2.7.2 Successful Operation

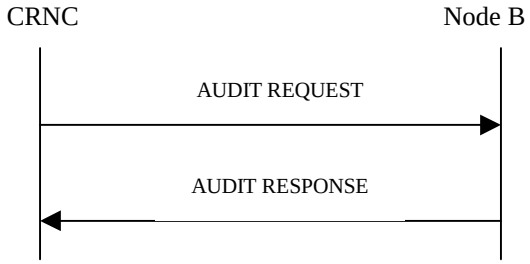


Figure 10: Audit procedure, Successful Operation

The procedure is initiated with an AUDIT REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

If the *Start Of Audit Sequence Indicator* IE in the AUDIT REQUEST message is set to "start of audit sequence" a new audit sequence is started, any ongoing audit sequence shall be aborted and the Node B shall provide (part of the) audit information. If the *Start Of Audit Sequence Indicator* IE is set to "not start of audit sequence", the Node B shall provide (part of) the remaining audit information not already provided during this audit sequence.

If the information provided in the AUDIT RESPONSE message completes the audit sequence, the Node B shall set the *End Of Audit Sequence Indicator* IE in the AUDIT RESPONSE message to "End of Audit Sequence". If not all audit information has been provided yet as part of the ongoing audit sequence, the Node B shall set the *End Of Audit Sequence Indicator* IE in the AUDIT RESPONSE message to "Not End of Audit Sequence".

Information Provided In One Audit Sequence:

The Node B shall include one *Local Cell Information* IE for each local cell present in the Node B. The Node B shall include the *Maximum DL Power Capability* IE, the *Minimum Spreading Factor* IE and the *Minimum DL Power Capability* IE when any of those values are known by the Node B.The Node B shall include the *HSDPA Capability* IE set to "HSDPA Capable" and may include *HS-DSCH MAC-d PDU Size Capability* IE for every HSDPA-capable Local Cell. The Node B shall include the *E-DCH Capability* IE set to "E-DCH Capable" for every E-DCH-capable Local Cell. The Node B shall include the *MBMS Capability* IE set to "MBMS Capable" for every MBMS-capable Local Cell. [FDD - The Node B shall include the *F-DPCH Capability* IE set to "F-DPCH Capable" for every F-DPCH-capable Local Cell.] [FDD - The Node B shall include the *Continuous Packet Connectivity DTX-DRX Capability* IE set to "Continuous Packet Connectivity DTX-DRX Capable" when Continuous Packet Connectivity DTX-DRX is supported for every Local Cell that is both HSDPA-capable and E-DCH-capable.] [FDD - The Node B shall include the *Continuous Packet Connectivity HS-SCCH less Capability* IE set to "Continuous Packet Connectivity HS-SCCH less Capable" when Continuous Packet Connectivity HS-SCCH less is supported for every Local Cell that is both HSDPA-capable and E-DCH-capable.] [FDD - The Node B shall include the *MIMO Capability* IE set to "MIMO Capable" for every MIMO-capable Local Cell.] [FDD - The Node B shall include the *SixtyfourQAM DL Capability* IE set to "SixtyfourQAM DL Capable" for every SixtyfourQAM DL-capable Local Cell.] [FDD - The Node B shall include the *Enhanced FACH Capability* IE set to "Enhanced FACH Capable" for every Enhanced FACH-capable Local Cell.] [FDD - The Node B shall include the *SixteenQAM UL Capability* IE set to "SixteenQAM UL Capable" for every SixteenQAM UL-capable Local Cell.] [1.28Mcps TDD - The Node B shall include the *MBSFN Only Mode Capability* IE set to "MBSFN Only Mode Capable" for every MBSFN Only Mode-capable Local Cell.] [FDD - The Node B shall include the *F-DPCH Slot Format Capability* IE set to "F-DPCH Slot Format Capable" for every F-DPCH Slot Format-capable Local Cell.]

[TDD - The Node B shall include the *Reference Clock Availability* IE to indicate the availability of a Reference clock connected to the Local Cell.]

If the Node B internal resources are pooled for a group of cells, the Node B shall include one *Local Cell Group Information* IE containing the Node B internal resource capacity and the consumption laws per group of cells [FDD - , including also the *E-DCH Capacity consumption Law* IE, if E-DCH is supported] [TDD - , including also the *E-DCH TDD Capacity Consumption Law* IE, if E-DCH is supported]. If the *UL Capacity Credit* IE is not present in the *Local Cell Group Information* IE, then the internal resource capabilities of the Node B for the Local Cell Group are modelled as shared resources between Uplink and Downlink.

If the Node B internal power resources are pooled for a group of Local Cells, the Node B shall include one *Power Local Cell Group Information* IE containing the Maximum DL Power Capability for each Power Local Cell Group for which this value is known by the Node B. In this case, the Node B shall also include the *Maximum DL Power Capability* IE in the *Local Cell Information* IE for all the Local Cells belonging to a Power Local Cell Group reported in the *Power Local Cell Group Information* IE. Furthermore, the sum of the Maximum DL Power Capability of all the Local Cells belonging to the same Power Local Cell Group shall not exceed the Maximum DL Power Capability of the concerned Power Local Cell Group.

The Node B shall include, for each local cell present in the Node B, the Node B internal resource capability and consumption laws within the *Local Cell Information* IE [FDD - , including also the *E-DCH CapacityCconsumption Law*, if E-DCH is supported] [TDD - , including also the *E-DCH TDD Capacity Consumption Law* IE, if E-DCH is supported]. If the *UL Capacity Credit* IE is not present in the *Local Cell Information* IE, then the internal resource capabilities of the local cell are modelled as shared resources between Uplink and Downlink. If the Local Cell utilises Node B internal resource capabilities that are pooled for several Local Cell(s), the *Local Cell Group ID* IE shall contain the identity of the used Local Cell Group. If the Local Cell utilises Node B internal power resources that are pooled for several Local Cells, the *Power Local Cell Group ID* IE shall contain the identity of the concerned Power Local Cell Group.

The Node B shall include one *Cell Information* IE for each cell in the Node B and information about all common transport channels and all common physical channels for each cell. If a *Configuration Generation ID* IE for a cell can not be trusted, the Node B shall set this *Configuration Generation ID* IE = "0". The Node B shall include the *HS-DSCH Resources Information* IE for every Cell which has been configured with HS-DSCH resources. [FDD - The Node B shall include the *E-DCH Resources Information* IE for every Cell which has been configured with E-DCH resources.] [TDD - The Node B shall include the *E-DCH Resources Information* IE and the [3.84Mcps TDD - *E-RUCCH Information* IE] [7.68Mcps TDD - *E-RUCCH Information 7.68Mcps* IE]for every cell which has been configured with E-DCH resources.]

[1.28Mcps TDD - The Node B may include the *UpPCH Information LCR* IE for each frequency on which the UpPCH channel is not configured in the timeslot of UpPTS.]

[1.28Mcps TDD - For a multi-frequency cell, the Node B may include the *UARFCN* IE in the *HS-DSCH Resources Information* IE to report the status of the HS-DSCH resources on the indicated frequency, the Node B may also not include any *UARFCN* IE in the *HS-DSCH Resources Information* IE to report the status of the HS-DSCH resources for the whole cell.]

[1.28Mcps TDD - For a multi-frequency cell, the Node B may include the *UARFCN* IE in the *E-DCH Resources Information* IE to report the status of the E-DCH resources on the indicated frequency, the Node B may also not include any *UARFCN* IE in the *E-DCH Resources Information* IE to report the status of the E-DCH resources for the whole cell.]

The Node B shall also include one *Communication Control Port Information* IE for each Communication Control Port in the Node B.

[1.28Mcps TDD - For a multi-frequency cell, the Node B should report the status of the resources used for each frequency. A reporting method can be found in Annex E.]

8.2.7.3 Unsuccessful Operation

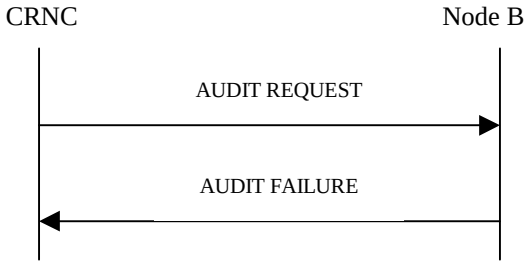


Figure 10A: Audit procedure, Unsuccessful Operation

If the Node B cannot perform an audit of the configuration and status of the logical resources, it shall send a AUDIT FAILURE message with the *Cause* IE set to an appropriate value.

8.2.7.4 Abnormal Conditions

If the Node B receives the AUDIT REQUEST message with the *Start Of Audit Sequence Indicator* IE set to "not start of audit sequence" and there is no ongoing audit sequence, the Node B shall send the AUDIT FAILURE message with the appropriate cause value.

8.2.8 Common Measurement Initiation

8.2.8.1 General

This procedure is used by a CRNC to request the initiation of measurements on common resources in a Node B.

8.2.8.2 Successful Operation

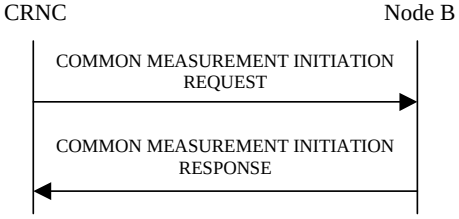


Figure 11: Common Measurement Initiation procedure, Successful Operation

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall initiate the requested measurement according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

[TDD - If the [3.84Mcps TDD and 7.68Mcps TDD - *Time Slot* IE] [1.28Mcps TDD - *Time Slot LCR* IE] is present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement request shall apply to the requested time slot individually.]

[1.28Mcps TDD - If the *UpPCH Position LCR* IE is present in the COMMON MEASUREMENT INITIATION REQUEST message, and the *Common Measurement Type* IE is set to "UpPCH interference", the measurement request shall apply to the requested UpPCH position individually.]

If the *Common Measurement Type* IE is not set to "SFN-SFN Observed Time Difference" and the *SFN Reporting Indicator* IE is set to "FN Reporting Required", the *SFN* IE shall be included in the COMMON MEASUREMENT

REPORT message or in the COMMON MEASUREMENT RESPONSE message, the latter only in the case the *Report Characteristics* IE is set to "On Demand". The reported SFN shall be the SFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [25]. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", the *SFN Reporting Indicator* IE shall be ignored.

[FDD - If the *Common Measurement Type* IE is set to "Received Scheduled E-DCH Power Share" and the *RTWP* Reporting Indicator* IE is set to "RTWP* Reporting Required", the *RTWP* Value* IE shall be included in the COMMON MEASUREMENT REPORT message or in the COMMON MEASUREMENT RESPONSE message, the latter only in the case the *Report Characteristics* IE is set to "On Demand". This is the received total wideband power (RTWP) determined for the same time period during which RSEPS is determined.]

[FDD - If the *Common Measurement Type* IE is set to "Received Scheduled E-DCH Power Share for Cell Portion" and the *RTWP*for Cell Portion Reporting Indicator* IE is set to "RTWP* Reporting Required", the *RTWP* Value* IE shall be included in the COMMON MEASUREMENT REPORT message or in the COMMON MEASUREMENT RESPONSE message, the latter only in the case the *Report Characteristics* IE is set to "On Demand".]

[1.28Mcps TDD - For a multi-frequency cell, if *Common Measurement Type* IE is set to "HS-DSCH Provided Bit Rate", and the *UARFCN* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement request shall apply to the indicated frequency, if *Common Measurement Type* IE is set to "HS-DSCH Provided Bit Rate", and the *UARFCN* IE is not included in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement request shall apply to the whole cell.]

Common measurement type:

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the Node B shall initiate the SFN-SFN Observed Time Difference measurements between the reference cell identified by *C-ID* IE and the neighbouring cells identified by the *UTRAN Cell Identifier(UC-Id)* IE in the *Neighbouring Cell Measurement Information* IE.

[FDD - If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion", "Transmitted Carrier Power for Cell Portion", "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion", "HS-DSCH Required Power for Cell Portion", "HS-DSCH Provided Bit Rate for Cell Portion" or "Received Scheduled E-DCH Power Share for Cell Portion", the Node B shall initiate the corresponding measurements for all the cell portions which are configured under the cell indicated by *C-ID* IE in the COMMON MEASUREMENT INITIATION REQUEST message.]

Report characteristics:
The *Report Characteristics* IE indicates how the reporting of the measurement shall be performed. See also Annex B.

If the *Report Characteristics* IE is set to "On Demand" and if the *SFN* IE is not provided, the Node B shall return the result of the requested measurement immediately. If the *SFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *Report Characteristics* IE is set to "Periodic", the Node B shall periodically initiate a Common Measurement Reporting procedure for this measurement, with the requested report frequency. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", all the available measurement results shall be reported in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE in the *SFN-SFN Measurement Value Information* IE and the Node B shall indicate in the *Unsuccessful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE all the remaining neighbouring cells with no measurement result available in the Common Measurement Reporting procedure. If the *SFN* IE is provided, it indicates the frame for which the first measurement value of a periodic reporting shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *Report Characteristics* IE is set to "Event A", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero for the hysteresis time. If the *Common Measurement Type* IE is set to "HS-DSCH Required Power", the measured entity to be considered is the sum of the HS-DSCH Required Power measurements for each priority class. [FDD - If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion" or "Transmitted Carrier Power for Cell Portion" or "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion" or "HS-DSCH Required Power for Cell Portion" or "Received Scheduled E-DCH Power Share for Cell Portion", the measurement entity to be considered is the corresponding measurement for each cell portion.]

If the *Report Characteristics* IE is set to "Event B", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero for the hysteresis time. If the *Common Measurement Type* IE is set to "HS-DSCH Required Power", the measured entity to be considered is the sum of the HS-DSCH Required Power measurements for each priority class. [FDD - If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion" or "Transmitted Carrier Power for Cell Portion" or "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion" or "HS-DSCH Required Power for Cell Portion" or "Received Scheduled E-DCH Power Share for Cell Portion", the measurement entity to be considered is the corresponding measurement for each cell portion.]

If the *Report Characteristics* IE is set to "Event C", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity rises by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next C event reporting for the same measurement cannot be initiated before the rising time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting. [FDD - If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion" or "Transmitted Carrier Power for Cell Portion"or "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion" or "Received Scheduled E-DCH Power Share for Cell Portion", the measurement entity to be considered is the corresponding measurement for each cell portion.]

If the *Report Characteristics* IE is set to "Event D", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity falls by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next D event reporting for the same measurement cannot be initiated before the falling time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting. [FDD - If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion" or "Transmitted Carrier Power for Cell Portion" or "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion" or "Received Scheduled E-DCH Power Share for Cell Portion", the measurement entity to be considered is the corresponding measurement for each cell portion.]

If the *Report Characteristics* IE is set to "Event E", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided, the Node B shall initiate the Common Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Common Measurement Reporting procedure (Report B) as well as terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the Node B shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero as hysteresis times for both Report A and Report B. If the *Common Measurement Type* IE is set to "HS-DSCH Required Power", the measured entity to be considered is the sum of the HS-DSCH Required Power measurements for each priority class. [FDD - If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion" or "Transmitted Carrier Power for Cell Portion" or "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion" or "HS-DSCH Required Power for Cell Portion" or "Received Scheduled E-DCH Power Share for Cell Portion", the measurement entity to be considered is the corresponding measurement for each cell portion.]

If the *Report Characteristics* IE is set to "Event F", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided the Node B shall also initiate the Common Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Common Measurement Reporting procedure (Report B) as well as terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the Node B shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero as hysteresis times for both Report A and Report B. If the *Common Measurement Type* IE is set to "HS-DSCH Required Power", the measured entity to be considered is the sum of the HS-DSCH Required Power measurements for each priority class. [FDD - If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion" or "Transmitted Carrier Power for Cell Portion" or "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion" or "HS-DSCH Required Power for Cell Portion" or "Received Scheduled E-DCH Power Share for Cell Portion", the measurement entity to be considered is the corresponding measurement for each cell portion.]

If the *Report Characteristics* IE is set to "On Modification" and if the *SFN* IE is not provided, the Node B shall report the result of the requested measurement immediately. If the *SFN* IE is provided, it indicates the frame for which the

measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25]. Then, the Node B shall initiate the Common Measurement Reporting procedure in accordance to the following conditions:

1. If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning":

 - If the $T_{UTRAN-GPS}$ *Change Limit* IE is included in the $T_{UTRAN-GPS}$ *Measurement Threshold Information* IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], calculate the change of $T_{UTRAN-GPS}$ value (F_n). The Node B shall initiate the Common Measurement Reporting procedure and set n equal to zero when the absolute value of F_n rises above the threshold indicated by the $T_{UTRAN-GPS}$ *Change Limit* IE. The change of $T_{UTRAN-GPS}$ value (F_n) is calculated according to the following:

 $F_n=0$ *for* $n=0$

 $F_n = (M_n – M_{n-1}) \bmod 37158912000000 – ((SFN_n – SFN_{n-1}) \bmod 4096) *10*3.84*10\^3*16 + F_{n-1}$

 for $n>0$

 F_n is the change of the $T_{UTRAN-GPS}$ value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

 M_n is the latest measurement result received after point C in the measurement model [25], measured at SFN_n.

 M_{n-1} is the previous measurement result received after point C in the measurement model [25], measured at SFN_{n-1}.

 M_1 is the first measurement result received after point C in the measurement model [25], after the first Common Measurement Reporting at initiation or after the last event was triggered.

 M_0 is equal to the value reported in the first Common Measurement Reporting at initiation or in the Common Measurement Reporting when the event was triggered.

 - If the *Predicted* $T_{UTRAN-GPS}$ *Deviation Limit* IE is included in the $T_{UTRAN-GPS}$ *Measurement Threshold Information* IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], update the P_n and F_n The Node B shall initiate the Common Measurement Reporting procedure and set n equal to zero when F_n rises above the threshold indicated by the *Predicted* $T_{UTRAN-GPS}$ *Deviation Limit* IE. The P_n and F_n are calculated according to the following:

 $P_n=b$ *for* $n=0$

 $P_n = ((a/16) * ((SFN_n – SFN_{n-1}) \bmod 4096)/100 +((SFN_n – SFN_{n-1}) \bmod 4096)*10*3.84*10\^3*16 + P_{n-1}) \bmod 37158912000000$ *for* $n>0$

 $F_n = \min((M_n - P_n) \bmod 37158912000000, (P_n - M_n) \bmod 37158912000000)$ *for* $n>0$

 P_n is the predicted $T_{UTRAN-GPS}$ value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

 a is the last reported $T_{UTRAN-GPS}$ Drift Rate value.

 b is the last reported $T_{UTRAN-GPS}$ value.

 F_n is the deviation of the last measurement result from the predicted $T_{UTRAN-GPS}$ value (P_n) when n measurements have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

 M_n is the latest measurement result received after point C in the measurement model [25], measured at SFN_n.

 M_1 is the first measurement result received after point C in the measurement model [25], after the first Common Measurement Reporting at initiation or after the last event was triggered.

 The $T_{UTRAN-GPS}$ Drift Rate is determined by the Node B in an implementation-dependent way after point B in the measurement model [25].

2. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference":

- If the *SFN-SFN Change Limit* IE is included in the *SFN-SFN Measurement Threshold Information* IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], calculate the change of SFN-SFN value (F_n). The Node B shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when F_n rises above the threshold indicated by the *SFN-SFN Change Limit* IE. The change of the SFN-SFN value is calculated according to the following:

 $F_n=0$ *for n=0*

 [FDD - $F_n = (M_n – a) \bmod 614400$ *for n>0*]

 [TDD - $F_n = (M_n – a) \bmod 40960$ *for n>0*]

 F_n is the change of the SFN-SFN value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

 a is the last reported SFN-SFN.

 M_n is the latest measurement result received after point C in the measurement model [25], measured at SFN_n.

 M_1 is the first measurement result received after point C in the measurement model [25] after the first Common Measurement Reporting at initiation or after the last event was triggered.

- If the *Predicted SFN-SFN Deviation Limit* IE is included in the *SFN-SFN Measurement Threshold Information* IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], update the P_n and F_n The Node B shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when the F_n rises above the threshold indicated by the *Predicted SFN-SFN Deviation Limit* IE. The P_n and F_n are calculated according to the following:

 $P_n=b$ *for n=0*

 [FDD - $P_n = ((a/16) * ((SFN_n – SFN_{n-1}) \bmod 4096)/100 + P_{n-1}) \bmod 614400$ *for n>0*]

 [FDD - $F_n = min((M_n - P_n) \bmod 614400, (P_n - M_n) \bmod 614400)$ *for n>0*]

 [TDD - $P_n = ((a/16) * (15*(SFN_n – SFN_{n-1}) \bmod 4096 + (TS_n – TS_{n-1}))/1500 + P_{n-1}) \bmod 40960$ *for n>0*]

 [TDD - $F_n = min((M_n - P_n) \bmod 40960, (P_n - M_n) \bmod 40960)$ *for n>0*]

 P_n is the predicted *SFN-SFN* value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

 a is the last reported SFN-SFN Drift Rate value.

 b is the last reported SFN-SFN value.

 abs denotes the absolute value.

 F_n is the deviation of the last measurement result from the predicted *SFN-SFN* value (P_n) when n measurements have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

 M_n is the latest measurement result received after point C in the measurement model [25], measured at [TDD - the Time Slot TS_n of] the Frame SFN_n.

 M_1 is the first measurement result received after point C in the measurement model [25] after the first Common Measurement Reporting at initiation or after the last event was triggered.

 The SFN-SFN Drift Rate is determined by the Node B in an implementation-dependent way after point B in the measurement model [25].

3. If the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE Positioning":

 - If the $T_{UTRAN\text{-}GANSS}$ *Change Limit* IE is included in the $T_{UTRAN\text{-}GANSS}$ *Measurement Threshold Information* IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25],

calculate the change of $T_{UTRAN-GANSS}$ value (F_n). The Node B shall initiate the Common Measurement Reporting procedure and set n equal to zero when the absolute value of F_n rises above the threshold indicated by the *$T_{UTRAN-GANSS}$ Change Limit* IE. The change of $T_{UTRAN-GANSS}$ value (F_n) is calculated according to the following:

$F_n=0$ *for* $n=0$

$F_n = (GAM_n – GAM_{n-1}) \bmod 5308416000000 – ((SFN_n – SFN_{n-1}) \bmod 4096) *10*3.84*10\^3*16 + F_{n-1}$

for $n>0$

F_n is the change of the $T_{UTRAN-GANSS}$ value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

GAM_n is the latest GANSS measurement result received after point C in the GANSS measurement model, measured at SFN_n.

GAM_{n-1} is the previous GANSS measurement result received after point C in the GANSS measurement model, measured at SFN_{n-1}.

GAM_1 is the first GANSS measurement result received after point C in the GANSS measurement model, after the first Common Measurement Reporting at initiation or after the last event was triggered.

GAM_0 is equal to the value reported in the first Common Measurement Reporting at initiation or in the Common Measurement Reporting when the event was triggered.

GANSS measurement model is the timing between cell j and GANSS Time Of Day. $T_{UE-GANSSj}$ is defined as the time of occurrence of a specified UTRAN event according to GANSS time. The specified UTRAN event is the beginning of a particular frame (identified through its SFN) in the first detected path (in time) of the cell j CPICH, where cell j is a cell chosen by the UE. The reference point for $T_{UE-GANSSj}$ shall be the antenna connector of the UE.

- If the *Predicted $T_{UTRAN-GANSS}$ Deviation Limit* IE is included in the *$T_{UTRAN-GANSS}$ Measurement Threshold Information* IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], update the P_n and F_n. The Node B shall initiate the Common Measurement Reporting procedure and set n equal to zero when F_n rises above the threshold indicated by the *Predicted $T_{UTRAN-GANSS}$ Deviation Limit* IE. The P_n and F_n are calculated according to the following:

 $P_n=b$ *for* $n=0$

 $P_n = ((a/16) * ((SFN_n – SFN_{n-1}) \bmod 4096)/100 +((SFN_n – SFN_{n-1}) \bmod 4096)*10*3.84*10\^3*16 + P_{n-1}) \bmod 5308416000000$ *for* $n>0$

 $F_n = \min((GAM_n - P_n) \bmod 5308416000000, (P_n - GAM_n) \bmod 5308416000000)$ *for* $n>0$

 P_n is the predicted $T_{UTRAN-GANSS}$ value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

 a is the last reported $T_{UTRAN-GANSS}$ Drift Rate value.

 b is the last reported $T_{UTRAN-GANSS}$ value.

 F_n is the deviation of the last measurement result from the predicted $T_{UTRAN-GANSS}$ value (P_n) when n measurements have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

 GAM_n is the latest GANSS measurement result received after point C in the GANSS measurement model, measured at SFN_n.

 GAM_1 is the first GANSS measurement result received after point C in the GANSS measurement model, after the first Common Measurement Reporting at initiation or after the last event was triggered.

The $T_{UTRAN-GANSS}$ Drift Rate is determined by the Node B in an implementation-dependent way after point B in the measurement model [25].

If the *Report Characteristics* IE is not set to "On Demand", the Node B is required to perform reporting for a common measurement object, in accordance with the conditions provided in the COMMON MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no common measurement object(s) for which a measurement is defined exists anymore, the Node B shall terminate the measurement locally, i.e. without reporting this to the CRNC.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the Node B shall initiate the Common Measurement Reporting procedure immediately, and then continue with the measurements as specified in the COMMON MEASUREMENT INITIATION REQUEST message.

Higher layer filtering:
The *Measurement Filter Coefficient* IE indicates how filtering of the measurement values shall be performed before measurement event evaluation and reporting.

The averaging shall be performed according to the following formula.

$$F_n = (1-a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows:

F_n is the updated filtered measurement result

F_{n-1} is the old filtered measurement result

M_n is the latest received measurement result from physical layer measurements, the unit used for M_n is the same unit as the reported unit in the COMMON MEASUREMENT INITIATION RESPONSE, COMMON MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for Fn)

$a = 1/2^{(k/2)}$, where k is the parameter received in the *Measurement Filter Coefficient* IE. If the *Measurement Filter Coefficient* IE is not present, *a* shall be set to 1 (no filtering)

In order to initialise the averaging filter, F_0 is set to M_1 when the first measurement result from the physical layer measurement is received.

Common measurement accuracy:

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", then the Node B shall use the *UTRAN GPS Timing Measurement Accuracy Class* IE included in the *Common Measurement Accuracy* IE according to the following:

- If the *UTRAN GPS Timing Measurement Accuracy Class* IE indicates "Class A", then the Node B shall perform the measurement with highest supported accuracy within the accuracy classes A, B and C.
- If the *UTRAN GPS Timing Measurement Accuracy Class* IE indicates "Class B", then the Node B shall perform the measurement with highest supported accuracy within the accuracy classes B and C.
- If the *UTRAN GPS Timing Measurement Accuracy Class* IE indicates "Class C", then the Node B shall perform the measurements with the accuracy according to class C.

If the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE Positioning", then the Node B shall use the $T_{UTRAN\text{-}GANSS}$ *Measurement Accuracy Class* IE included in the *Common Measurement Accuracy* IE according to the following:

- If the $T_{UTRAN\text{-}GANSS}$ *Measurement Accuracy Class* IE indicates "Class A", then the Node B shall perform the measurement with highest supported accuracy within the accuracy classes A, B and C.
- If the $T_{UTRAN\text{-}GANSS}$ *Measurement Accuracy Class* IE indicates "Class B", then the Node B shall perform the measurement with highest supported accuracy within the accuracy classes B and C.
- If the $T_{UTRAN\text{-}GANSS}$ *Measurement Accuracy Class* IE indicates "Class C", then the Node B shall perform the measurements with the accuracy according to class C.

Measurement Recovery Behavior:

If the *Measurement Recovery Behavior* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall, if Measurement Recovery Behavior is supported, include the *Measurement Recovery*

Support Indicator IE in the COMMON MEASUREMENT INITIATION RESPONSE message and perform the Measurement Recovery Behavior as described in subclause 8.2.9.2.

[FDD - Noise Floor Reporting:]

[FDD - If the *Common Measurement Type* IE is set to "Received Total Wide Band Power" and if the *Reference Received Total Wide Band Power Reporting* IE is included in the same COMMON MEASUREMENT INITIATION REQUEST message, the Node B may include the *Reference Received Total Wide Band Power* IE in the message used to report the common measurement.]

[FDD - If the *Reference Received Total Wide Band Power Reporting* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall if supported, include the *Reference Received Total Wide Band Power Support Indicator* IE or the *Reference Received Total Wide Band Power* IE in the COMMON MEASUREMENT INITIATION RESPONSE.]

Response message:
If the Node B was able to initiate the measurement requested by the CRNC, it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message sent over the Node B Control Port. The message shall include the same Measurement ID that was used in the measurement request. Only in the case where the *Report Characteristics* IE is set to "On Demand" or "On Modification", the COMMON MEASUREMENT INITIATION RESPONSE message shall include the measurement result and also the *Common Measurement Achieved Accuracy* IE if the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning" or "UTRAN GANSS Timing of Cell Frames for UE positioning".

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference" and the *Report Characteristics* IE is set to "On Demand" or "On Modification", all the available measurement results shall be reported in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE in the *SFN-SFN Measurement Value Information* IE and the Node B shall indicate in the *Unsuccessful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE all the remaining neighbouring cells with no measurement result available in the COMMON MEASUREMENT INITIATION RESPONSE message. For all available measurement results, the Node B shall include in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE the *SFN-SFN Quality* IE and the *SFN-SFN Drift Rate Quality* IE, if available.

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning" and the *Report Characteristics* IE is set to "On Demand" or "On Modification", the Node B shall include in the $T_{UTRAN-GPS}$ *Measurement Value Information* IE the $T_{UTRAN-GPS}$ *Quality* IE and the $T_{UTRAN-GPS}$ *Drift Rate Quality* IE, if available.

[FDD - If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion", "Transmitted Carrier Power for Cell Portion", "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion", "HS-DSCH Required Power for Cell Portion" or "HS-DSCH Provided Bit Rate for Cell Portion" and the *Report Characteristics* IE is set to "On Demand", all the available measurement results for each cell portion shall be included in the COMMON MEASUREMENT INITIATION RESPONSE message.]

If the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE Positioning" and the *Report Characteristics* IE is set to "On Demand" or "On Modification", the Node B shall include in the $T_{UTRAN-GANSS}$ *Measurement Value Information* IE, the $T_{UTRAN-GANSS}$ *Quality* IE and the $T_{UTRAN-GANSS}$ *Drift Rate Quality* IE, if available.

8.2.8.3 Unsuccessful Operation

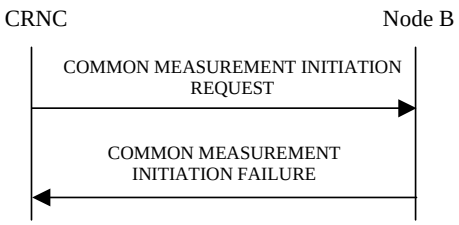


Figure 12: Common Measurement Initiation procedure, Unsuccessful Operation

If the requested measurement cannot be initiated, the Node B shall send a COMMON MEASUREMENT INITIATION FAILURE message over the Node B Control Port. The message shall include the same Measurement ID that was used in the COMMON MEASUREMENT INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

- Measurement not supported for the object.
- Measurement Temporarily not Available

8.2.8.4 Abnormal Conditions

The allowed combinations of the Common Measurement Type received in the *Common Measurement Type* IE and the Common Measurement Object Type received in the COMMON MEASUREMENT INITIATION REQUEST message are shown in the table below. For not allowed combinations, the Node B shall regard the Common Measurement Initiation procedure as failed.

Table 3a: Allowed Common Measurement Type and Common Measurement Object Type combinations

Common Measurement Type	Common Measurement Object Type		
	Cell	RACH	Power Local Cell Group
Received Total Wide Band Power	X		
Transmitted Carrier Power	X		
Acknowledged PRACH Preambles		X	
UL Timeslot ISCP	X		
UTRAN GPS Timing of Cell Frames for UE Positioning	X		
SFN-SFN Observed Time Difference	X		
[TDD - Transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission] [FDD - Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission]	X		
HS-DSCH Required Power	X		
HS-DSCH Provided Bit Rate	X		
Received Total Wide Band Power for Cell Portion	FDD only		
Transmitted Carrier Power for Cell Portion	FDD only		
Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion	FDD only		
UpPCH interference	1.28 Mcps TDD only		
DL Transmission Branch Load	FDD only		FDD only
HS-DSCH Required Power for Cell Portion	FDD only		
HS-DSCH Provided Bit Rate for Cell Portion	FDD only		
E-DCH Provided Bit Rate	X		
E-DCH Non-serving Relative Grant Down Commands	FDD only		
Received Scheduled E-DCH Power Share	FDD only		
Received Scheduled E-DCH Power Share for Cell Portion	FDD only		
UTRAN GANSS Timing of Cell Frames for UE Positioning	X		

[TDD - If the Common Measurement Type requires the Time Slot Information but the [3.84Mcps TDD and 7.68Mcps TDD - *Time Slot* IE] [1.28Mcps TDD - *Time Slot LCR* IE] is not present in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.]

If the COMMON MEASUREMENT INITIATION REQUEST message contains the *SFN-SFN Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the Node B shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the COMMON MEASUREMENT INITIATION REQUEST message contains the $T_{UTRAN\text{-}GPS}$ *Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the Node B shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", but the *Neighbouring Cell Measurement Information* IE is not received in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", but the $T_{UTRAN-GPS}$ *Measurement Accuracy Class* IE in the *Common Measurement Accuracy* IE is not included in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.

If the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE Positioning", but the $T_{UTRAN-GANSS}$ *Measurement Accuracy Class* IE in the *Common Measurement Accuracy* IE is not included in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.

[FDD - If the COMMON MEASUREMENT INITIATION REQUEST message contains the *Reference Received Total Wide Band Power Reporting* IE and it does not contain the *Common Measurement Type* IE set to "Received Total Wide Band Power", the Node B shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.]

The allowed combinations of the Common Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the Node B shall regard the Common Measurement Initiation procedure as failed.

Table 4: Allowed Common Measurement Type and Report Characteristics Type combinations

Common Measurement Type	Report Characteristics Type								
	On Demand	Periodic	Event A	Event B	Event C	Event D	Event E	Event F	On Modification
Received Total Wide Band Power	X	X	X	X	X	X	X	X	
Transmitted Carrier Power	X	X	X	X	X	X	X	X	
Acknowledged PRACH Preambles	X	X	X	X	X	X	X	X	
UL Timeslot ISCP	X	X	X	X	X	X	X	X	
UTRAN GPS Timing of Cell Frames for UE Positioning	X	X							X
SFN-SFN Observed Time Difference	X	X							X
[TDD - Transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission] [FDD - Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission]	X	X	X	X	X	X	X	X	
HS-DSCH Required Power	X	X	X	X			X	X	
HS-DSCH Provided Bit Rate	X	X							
[FDD - Received Total Wide Band Power for Cell Portion]	X	X	X	X	X	X	X	X	
[FDD - Transmitted Carrier Power for Cell Portion]	X	X	X	X	X	X	X	X	
[FDD - Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion]	X	X	X	X	X	X	X	X	
UpPTS interference	X	X	X	X	X	X	X	X	
DL Transmission Branch Load	X	X	X	X			X	X	
[FDD - HS-DSCH Required Power for Cell Portion]	X	X	X	X			X	X	
[FDD - HS-DSCH Provided Bit Rate for Cell Portion]	X	X							
E-DCH Provided Bit Rate	X	X							
E-DCH Non-serving Relative Grant Down Commands	X	X	X	X			X	X	

Received Scheduled E-DCH Power Share	X	X	X	X	X	X	X	X	
[FDD - Received Scheduled E-DCH Power Share for Cell Portion]	X	X	X	X	X	X	X	X	
UTRAN GANSS Timing of Cell Frames for UE Positioning	X	X							X

If the *SFN* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic", "On Demand" or "On Modification", the Node B shall regard the Common Measurement Initiation procedure as failed.

8.2.9 Common Measurement Reporting

8.2.9.1 General

This procedure is used by the Node B to report the result of measurements requested by the CRNC with the Common Measurement Initiation procedure.

8.2.9.2 Successful Operation



Figure 13: Common Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the Node B shall initiate the Common Measurement Reporting procedure. The COMMON MEASUREMENT REPORT message shall use the Node B Control Port.

The *Measurement ID* IE shall be set to the Measurement ID provided by the CRNC when initiating the measurement with the Common Measurement Initiation procedure.

If the achieved measurement accuracy does not fulfil the given accuracy requirement (see ref.[22] and [23]) or the measurement is temporarily not available in case Measurement Recovery Behavior is supported, the *Common Measurement Value Information* IE shall indicate Measurement not Available. If the Node B was configured to perform the Measurement Recovery Behavior, the Node B shall indicate Measurement Available to the CRNC when the achieved measurement accuracy again fulfils the given accuracy requirement (see ref. [22] and [23]) and include the *Measurement Recovery Report Indicator* IE in the COMMON MEASUREMENT REPORT message if the requested measurement reporting criteria are not met.

For measurements included in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE, the Node B shall include the *SFN-SFN Quality* IE and the *SFN-SFN Drift Rate Quality* IE if available.

If the Common Measurement Type provided by RNC when initiating the measurement with the Common Measurement Initiation procedure was "UTRAN GPS Timing of Cell Frames for UE Positioning", then the Node B shall include in the $T_{UTRAN\text{-}GPS}$ *Measurement Value Information* IE the $T_{UTRAN\text{-}GPS}$ *Quality* IE and the $T_{UTRAN\text{-}GPS}$ *Drift Rate Quality* IE, if available.

If the Common Measurement Type provided by RNC when initiating the measurement with the Common Measurement Initiation procedure was "UTRAN GANSS Timing of Cell Frames for UE Positioning", then the Node B shall include

in the $T_{UTRAN-GANSS}$ *Measurement Value Information* IE the $T_{UTRAN-GANSS}$ *Quality* IE and the $T_{UTRAN-GANSS}$ *Drift Rate Quality* IE, if available.

[FDD - For Received Total Wide Band Power for Cell Portion, Transmitted Carrier Power for Cell Portion, Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion, HS-DSCH Required Power for Cell Portion, HS-DSCH Provided Bit Rate for Cell Portion, Received Scheduled E-DCH Power Share for Cell Portion measurements, all the available measurement results for each cell portion shall be included in the COMMON MEASUREMENT REPORT message.]

8.2.9.3 Abnormal Conditions

-

8.2.10 Common Measurement Termination

8.2.10.1 General

This procedure is used by the CRNC to terminate a measurement previously requested by the Common Measurement Initiation procedure.

8.2.10.2 Successful Operation



Figure 14: Common Measurement Termination procedure, Successful Operation

This procedure is initiated with a COMMON MEASUREMENT TERMINATION REQUEST message, sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall terminate reporting of common measurements corresponding to the received *Measurement ID* IE.

8.2.10.3 Abnormal Conditions

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8.2.11 Common Measurement Failure

8.2.11.1 General

This procedure is used by the Node B to notify the CRNC that a measurement previously requested by the Common Measurement Initiation procedure can no longer be reported.

8.2.11.2 Successful Operation



Figure 15: Common Measurement Failure procedure, Successful Operation

This procedure is initiated with a COMMON MEASUREMENT FAILURE INDICATION message, sent from the Node B to the CRNC using the Node B Control Port, to inform the CRNC that a previously requested measurement can no longer be reported. The Node B has locally terminated the indicated measurement.

8.2.11.3 Abnormal Conditions

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8.2.12 Cell Setup

8.2.12.1 General

This procedure is used to set up a cell in the Node B. The CRNC takes the cell, identified via the *C-ID* IE, into service and uses the resources in the Node B identified via the *Local Cell ID* IE.

8.2.12.2 Successful Operation

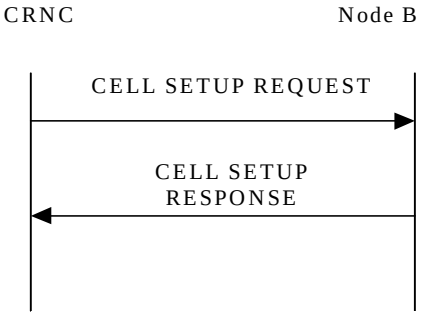


Figure 16: Cell Setup procedure, Successful Operation

The procedure is initiated with a CELL SETUP REQUEST message sent from the CRNC to the Node B using the Node B Control Port. Upon Reception, the Node B shall reserve the necessary resources and configure the new cell according to the parameters given in the message.

[FDD - If the CELL SETUP REQUEST message includes one or more *Secondary CPICH Information* IE, the Node B shall configure and activate the Secondary CPICH(s) in the cell according to received configuration data.]

The *Maximum Transmission Power* IE value shall be stored in the Node B and, at any instance of time, the total maximum output power in the cell shall not be above this value. [1.28Mcps TDD - For a multi-frequency cell, at any instance of time, the total maximum output power for each frequency of the cell shall not be above this value.]

[FDD - If the *Closed Loop Timing Adjustment Mode* IE is included in the CELL SETUP REQUEST message, the value shall be stored in the Node B and applied when closed loop Feed-Back mode diversity is used on DPCH.]

[TDD - If the *Reference SFN Offset* IE is included in the CELL SETUP REQUEST message, the Node B where a reference clock is connected shall consider the SFN derived from the synchronisation port and the reference offset for reference time setting. All other Node Bs shall ignore the *Reference SFN Offset* IE if included.]

[FDD - If the *IPDL Parameter Information* IE is included in the CELL SETUP REQUEST message, the parameters defining IPDL shall be stored in the Node B and applied according to the *IPDL Indicator* IE value. If the *Burst Mode Parameters* IE is included in the *IPDL FDD Parameters* IE, the IPDL shall be operated in burst mode according to ref [10].]

[3.84Mcps TDD and 7.68Mcps TDD - If the *IPDL Parameter Information* IE containing *IPDL TDD Parameters* IE is included in the CELL SETUP REQUEST message, the parameters defining IPDL in 3.84Mcps TDD and 7.68Mcps TDD modes shall be stored in the Node B and applied according to the *IPDL Indicator* IE value. If the *Burst Mode Parameters* IE is included in the *IPDL TDD Parameters* IE, the IPDL shall be operated in burst mode according to ref [21].]

[1.28Mcps TDD - If the *IPDL Parameter Information LCR* IE containing *IPDL TDD Parameters LCR* IE is included in the CELL SETUP REQUEST message, the parameters defining IPDL in 1.28Mcps TDD mode shall be stored in the Node B and applied according to the *IPDL Indicator* IE value. For MBSFN only mode, this IE shall be ignored by the Node B. If the *Burst Mode Parameters* IE is included in the *IPDL TDD Parameters LCR* IE, the IPDL shall be operated in burst mode according to ref [21].]

[1.28Mcps TDD - For a multi-frequency cell, the *UARFCN Information LCR* IE indicates information about the configuration of the frequency and timeslot of the secondary frequency/frequencies.]

When the cell is successfully configured, the Node B shall store the *Configuration Generation ID* IE value and send a CELL SETUP RESPONSE message as a response.

[FDD - When the cell is successfully configured the CPICH(s), Primary SCH, Secondary SCH, Primary CCPCH and BCH exist.][3.84Mcps TDD and 7.68Mcps TDD - When the cell is successfully configured the SCH, Primary CCPCH and BCH exist and the switching-points for the 3.84Mcps TDD / 7.68Mcps TDD frame structure are defined.] [1.28Mcps TDD - When the cell is successfully configured, the DwPCH, Primary CCPCH and BCH exist and the switching-points for the 1.28Mcps TDD frame structure are defined.] The cell and the channels shall be set to the state Enabled [6].

[1.28Mcps TDD - For a multi-frequency cell, the Node B shall consider the cell as having been successfully configured as long as the primary frequency is normally setup. When the cell is successfully configured, the Node B shall respond with the CELL SETUP RESPONSE message.]

[TDD - The Node B shall ignore the *DPCH/PUSCH/PRACH Constant Value* IEs.]

[1.28Mcps TDD - For a multi-frequency cell, when the cell is successfully configured, the Node B shall configure the UpPCH channel of the primary frequency in the timeslot of UpPTS.]

[FDD - If the CELL SETUP REQUEST message includes *Cell Portion Information* IE, the Node B shall associate *Associated Secondary CPICH* IE to the cell portion indicated by *Cell Portion ID* IE and the *Maximum Transmission Power for Cell Portion* IE value shall be stored in the Node B and at any instance of time the total maximum output power in the cell portion indicated by *Cell Portion ID* IE shall not be above this value.]

[FDD - If the *MIMO Pilot Configuration* IE is included in the CELL SETUP REQUEST message, then the parameters defining the pilot configuration for MIMO shall be stored in the Node B and applied when MIMO mode is used according to [10].]

[3.84Mcps TDD and 7.68Mcps TDD - If the CELL SETUP REQUEST message includes the *MBSFN Cell Parameter ID* IE, then the Node B shall configure the associated timeslot to operate in MBSFN mode using the scrambling codes and midambles dictated by the *MBSFN Cell Parameter ID* IE.]

[1.28Mcps TDD - If the CELL SETUP REQUEST message includes the *MBSFN Only Mode Indicator* IE, the Node B shall configure the associated timeslot(s) to operate as MBSFN time slot(s) using the scrambling codes and basic midamble codes dictated by the *Time Slot Parameter ID* IE.]

[1.28Mcps TDD - If the cell is operating in MBSFN only mode, the *DwPCH Information* IE shall be ignored by the Node B.]

[1.28 Mcps TDD - If the cell is operating in MBSFN only mode, the PCCPCH shall be deployed on the MBSFN Special Time Slot [19].]

8.2.12.3 Unsuccessful Operation

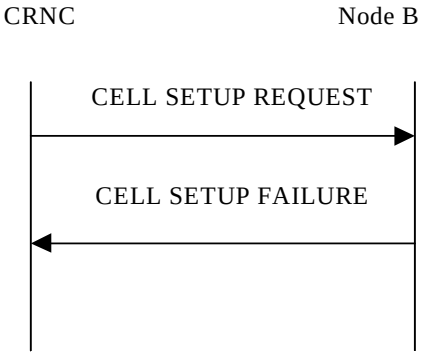


Figure 17: Cell Setup procedure: Unsuccessful Operation

If the Node B cannot set up the cell according to the information given in CELL SETUP REQUEST message the CELL SETUP FAILURE message shall be sent to the CRNC.

In this case, the cell is Not Existing in the Node B. The Configuration Generation ID shall not be changed in the Node B.

The *Cause* IE shall be set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

- S-CPICH not supported
- Requested Tx Diversity Mode not supported
- Power level not supported
- Node B Resources unavailable
- IPDL not supported

Miscellaneous Cause:

- O&M Intervention
- Control processing overload
- HW failure

8.2.12.4 Abnormal Conditions

If the state of the cell already is Enabled or Disabled [6] when the CELL SETUP REQUEST message is received in the Node B, it shall reject the configuration of the cell and all channels in the CELL SETUP REQUEST message by sending a CELL SETUP FAILURE message with the *Cause* IE set to "Message not compatible with receiver state".

If the Local Cell on which the cell is mapped does not belong to a Power Local Cell Group and the requested maximum transmission power indicated by the *Maximum Transmission Power* IE exceeds the Maximum DL Power Capability of the Local Cell, the Node B shall consider the procedure as having failed and send a CELL SETUP FAILURE message to the CRNC.

If the Local Cell on which the cell is mapped belongs to a Power Local Cell Group and the requested maximum transmission power indicated by *Maximum Transmission Power* IE exceeds the Maximum DL Power Capability of the Power Local Cell Group, the Node B shall consider the procedure as having failed and send a CELL SETUP FAILURE message to the CRNC.

8.2.13 Cell Reconfiguration

8.2.13.1 General

This procedure is used to reconfigure a cell in the Node B.

8.2.13.2 Successful Operation

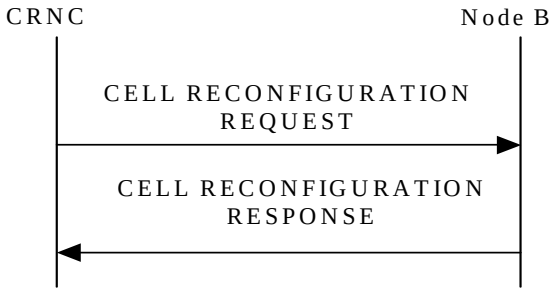


Figure 18: Cell Reconfiguration procedure, Successful Operation

The procedure is initiated with a CELL RECONFIGURATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port. Upon Reception, the Node B shall reconfigure the cell according to the parameters given in the message.

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Primary SCH Information* IE, the Node B shall reconfigure the Primary SCH power in the cell according to *Primary SCH Power* IE value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Secondary SCH Information* IE, the Node B shall reconfigure the Secondary SCH power in the cell according to the *Secondary SCH Power* IE value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Primary CPICH Information* IE, the Node B shall reconfigure the Primary CPICH power in the cell according to the *Primary CPICH Power* IE value. The Node B shall adjust all the transmitted power levels relative to the Primary CPICH power according to the new value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes one or more *Secondary CPICH Information* IE, the Node B shall reconfigure the power for each Secondary CPICH in the cell according to their *Secondary CPICH Power* IE value.]

[3.84Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *SCH Information* IE, the Node B shall reconfigure the SCH power in the cell according to the *SCH Power* IE value.]

[7.68Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *SCH Information 7.68Mcps* IE, the Node B shall reconfigure the SCH power in the cell according to the *SCH Power* IE value.]

[TDD - If the CELL RECONFIGURATION REQUEST message includes the *Timing Advance Applied* IE, the Node B shall apply the necessary functions for Timing Advance in that cell including reporting of the Rx Timing Deviation measurement, according to the *Timing Advance Applied* IE value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Primary CCPCH Information* IE, the Node B shall reconfigure the BCH power in the cell according to the *BCH Power* IE value.]

[1.28Mcps TDD and 3.84Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *PCCPCH Information* IE, the Node B shall reconfigure the P-CCPCH power in the cell according to the *PCCPCH Power* IE value. The Node B shall adjust all the transmitted power levels relative to the Primary CCPCH power according to the new value.]

[7.68Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *PCCPCH Information 7.68Mcps* IE, the Node B shall reconfigure the P-CCPCH power in the cell according to the *PCCPCH Power* IE value. The Node B shall adjust all the transmitted power levels relative to the Primary CCPCH power according to the new value.]

If the CELL RECONFIGURATION REQUEST message includes the *Maximum Transmission Power* IE, the value shall be stored in the Node B and at any instance of time the total maximum output power in the cell shall not be above this value.

[3.84Mcps TDD and 7.68Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *Time Slot Configuration* IE, the Node B shall reconfigure switching-point structure in the cell according to the *Time Slot* IE value.]

[1.28Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *Time Slot Configuration LCR* IE, the Node B shall reconfigure switching-point structure in the cell according to the *Time Slot LCR* IE value.]

[TDD - If the CELL RECONFIGURATION REQUEST message includes any of the *DPCH/PUSCH/PRACH Constant Value* IEs, the Node B shall ignore them]

[1.28Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *DwPCH Information* IE, the Node B shall reconfigure the DwPCH power in the Cell according to the *DwPCH Power* IE.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *IPDL Parameter Information* IE with the *IPDL Indicator* IE set to the value "Active" the Node B shall apply the IPDL in that cell according to the latest received parameters defined by the *IPDL FDD Parameters* IE. If the *Burst Mode Parameters* IE is included in the *IPDL FDD Parameters* IE, the IPDL shall be operated in burst mode according to ref [10].]

[3.84Mcps TDD and 7.68Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *IPDL Parameter Information* IE with the *IPDL Indicator* IE set to the value "Active", the Node B shall apply the IPDL in that cell according to the latest received parameters defined by the *IPDL TDD Parameters* IE. If the *Burst Mode Parameters* IE is included in the *IPDL TDD Parameters* IE, the IPDL shall be operated in burst mode according to ref [21].]

[1.28Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *IPDL Parameter Information LCR* IE with the *IPDL Indicator* IE set to the value "Active", the Node B shall apply the IPDL in that cell according to the latest received parameters defined by the *IPDL TDD Parameters LCR* IE. If the *Burst Mode Parameters* IE is included in the *IPDL TDD Parameters LCR* IE, the IPDL shall be operated in burst mode according to ref [21].]

If the CELL RECONFIGURATION REQUEST message includes the *IPDL Parameter Information* IE with *the IPDL Indicator* IE set to the value "Inactive", the Node B shall deactivate the ongoing IPDL.

When the cell is successfully reconfigured, the Node B shall store the new *Configuration Generation ID* IE value and send a CELL RECONFIGURATION RESPONSE message as a response.

If the CELL RECONFIGURATION REQUEST message includes the *Synchronisation Configuration* IE, the Node B shall reconfigure the indicated parameters in the cell according to the value of the *N_INSYNC_IND*, *N_OUTSYNC_IND* and *T_RLFAILURE* IEs. When the parameters in the *Synchronisation Configuration* IE affect the thresholds applied to a RL set, the Node B shall immediately apply the new thresholds. When applying the new thresholds, the Node B shall not change the state or value of any of the timers and counters for which the new thresholds apply.

[FDD - If the CELL RECONFIGURATION REQUEST message includes *Cell Portion Information* IE, the *Maximum Transmission Power for Cell Portion* IE value shall be stored in the Node B and at any instance of time the total maximum output power in the cell portion indicated by *Cell Portion ID* IE shall not be above this value.]

[FDD - If the *MIMO Pilot Configuration* IE is included in the CELL RECONFIGURATION REQUEST message, then the parameters defining the pilot configuration for MIMO shall be stored in the Node B and applied when MIMO mode is used according to [10].]

[3.84Mcps TDD and 7.68Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *MBSFN Cell Parameter ID* IE, then the Node B shall configure the associated timeslot to operate in MBSFN mode using the scrambling code and midamble dictated by the *MBSFN Cell Parameter ID* IE.]

[1.28Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *UARFCN Information To Add LCR* IE, the Node B shall reserve the necessary resource and add a secondary frequency to the cell according to the information indicated in the *UARFCN Information To Add LCR* IE.]

[1.28Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *UARFCN Information To Modify LCR* IE, the Node B shall reconfigure the configuration of the secondary frequency within the cell according to the information indicated in the *UARFCN Information To Modify LCR* IE.]

[1.28Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *UARFCN Information To Delete LCR* IE, the Node B shall remove the secondary frequency from the cell and any remaining dedicated channels on the secondary frequency according to the frequency information given in the *UARFCN Information To Delete LCR* IE. The states for the frequency within the cell shall be set to "Not existing". The Node B shall remove all Radio Links and all Node B Communication Contexts related to the secondary frequency within the cell. The Node B shall also initiate the release of the user plane transport bearers for the removed dedicated channels on the secondary frequency within the cell.]

[1.28 Mcps TDD - If the cell is operating in MBSFN only mode, the PCCPCH shall be deployed on the MBSFN Special Time Slot [19].]

8.2.13.3 Unsuccessful Operation

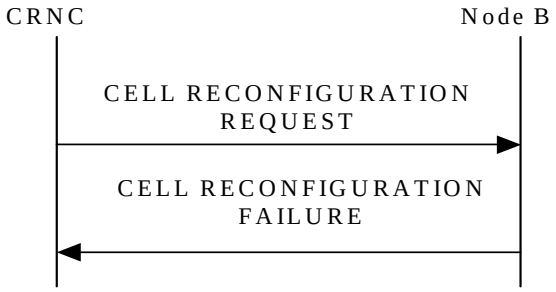


Figure 19: Cell Reconfiguration procedure: Unsuccessful Operation

If the Node B cannot reconfigure the cell according to the information given in CELL RECONFIGURATION REQUEST message, the CELL RECONFIGURATION FAILURE message shall be sent to the CRNC.

In this case, the Node B shall keep the old configuration of the cell and the Configuration Generation ID shall not be changed in the Node B.

The *Cause* IE shall be set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

- Power level not supported
- Node B Resources unavailable
- IPDL not supported

Miscellaneous Cause:

- O&M Intervention
- Control processing overload
- HW failure

8.2.13.4 Abnormal Conditions

If the *IPDL Indicator* IE set to the value "Active" is included in the CELL RECONFIGURATION REQUEST message and there is active IPDL ongoing in the Node B, the Node B shall respond with the CELL RECONFIGURATION FAILURE message with the cause value "IPDL already activated".

If the *IPDL Indicator* IE set to the value "Active" is included in the CELL RECONFIGURATION REQUEST message and there is no IPDL stored in the Node B defining the IPDL, the Node B shall respond with the CELL RECONFIGURATION FAILURE message with the cause value "IPDL parameters not available".

If the Local Cell on which the cell is mapped does not belong to of a Power Local Cell Group and the requested maximum transmission power indicated by the *Maximum Transmission Power* IE exceeds the Maximum DL Power Capability of the Local Cell, the Node B shall consider the procedure as having failed and send a CELL RECONFIGURATION FAILURE message to the CRNC.

If the Local Cell on which the cell is mapped belongs to a Power Local Cell Group and the requested maximum transmission power indicated by *Maximum Transmission Power* IE exceeds the Maximum DL Power Capability of the Power Local Cell Group, the Node B shall consider the procedure as having failed and send a CELL RECONFIGURATION FAILURE message to the CRNC.

8.2.14 Cell Deletion

8.2.14.1 General

This procedure is used to delete a cell in the Node B.

8.2.14.2 Successful Operation

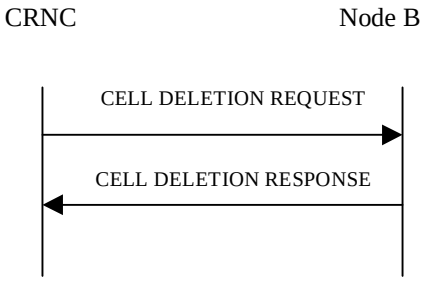


Figure 20: Cell Deletion procedure, Successful Operation

The procedure is initiated with a CELL DELETION REQUEST message sent from the CRNC to the Node B using the Node B Control Port. Upon reception, the Node B shall remove the cell and any remaining common and dedicated channels within the cell. The states for the cell and the deleted common channels shall be set to Not Existing [6]. The Node B shall remove all Radio Links from the Cell and all Node B Communication Contexts that as a result do not have a Radio Link. The Node B shall also initiate release of the user plane transport bearers for the removed common and dedicated channels except the case that there is at least one FACH channel in this cell using the same transport bearer existing in other cell(s) in the Node B. In this case, the Node B shall remove the cell and any remaining common and dedicated channels within the cell but keep the common transport bearer which is used by the remaining common transport channel(s) in other cell(s).

When the cell is deleted, the Node B shall send a CELL DELETION RESPONSE message as a response.

8.2.14.3 Unsuccessful Operation

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8.2.14.4 Abnormal Conditions

If the CELL DELETION REQUEST message includes a *C-ID* IE value that is not existing in the Node B, the Node B shall respond with the CELL DELETION RESPONSE message.

8.2.15 Resource Status Indication

8.2.15.1 General

This procedure is used in the following cases:

1. When a Local Cell becomes Existing at the Node B.
2. When a Local Cell is to be deleted in Node B, i.e. becomes Not Existing.
3. When the capabilities of the Local Cell change at the Node B.
4. When a cell has changed its capability and/or its resource operational state at the Node B.
5. When common physical channels and/or common transport channels have changed their capabilities at the Node B.
6. When a Communication Control Port has changed its resource operational state at the Node B.
7. When a Local Cell Group has changed its resource capability at the Node B.
8. [1.28Mcps TDD - For a multi-frequency cell, when a cell has been successfully set up but a secondary frequency failure has occurred within the cell.]

Each of the above cases shall trigger a Resource Status Indication procedure and the RESOURCE STATUS INDICATION message shall contain the logical resources affected for that case and the cause value when applicable.

8.2.15.2 Successful Operation

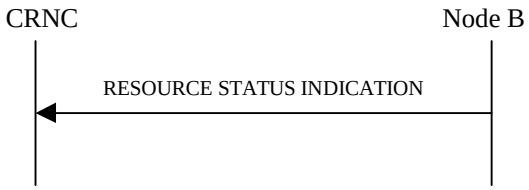


Figure 21: Resource Status Indication procedure, Successful Operation

The procedure is initiated with a RESOURCE STATUS INDICATION message sent from the Node B to the CRNC using the Node B Control Port.

Local Cell Becomes Existing:

When a Local Cell becomes Existing at the Node B, the Node B shall make it available to the CRNC by sending a RESOURCE STATUS INDICATION message containing a "No Failure" Indication, the *Local Cell ID* IE and the *Add/Delete Indicator* IE set equal to "Add".

When the capacity credits and consumption laws are shared between several Local Cells, the Node B includes the *Local Cell Group ID* IE for the Local Cell. If the *Local Cell Group Information* IE has not already been reported in a previous RESOURCE STATUS INDICATION message, the Node B shall include the capacity credits and the consumption laws in the *Local Cell Group Information* IE [FDD - , including also the E-DCH capacity consumption law, if E-DCH is supported].

If the *Local Cell* IE contains both the *DL Or Global Capacity Credit* IE and the *UL Capacity Credit* IE, then the internal resource capabilities of the Local Cell are modelled independently in the Uplink and Downlink direction. If the *UL Capacity Credit* IE is not present, then the internal resource capabilities of the Local Cell are modelled as shared resources between Uplink and Downlink. If the *Local Cell Group Information* IE contains both the *DL Or Global Capacity Credit* IE and the *UL Capacity Credit* IE, then the internal resource capabilities of the Local Cell Group are modelled independently in the Uplink and Downlink direction. If the *UL Capacity Credit* IE is not present, then the internal resource capabilities of the Local Cell Group are modelled as shared resources between Uplink and Downlink.

If the Node B internal power resources are pooled for a group of Local Cells, the Node B shall include the *Power Local Cell Group ID* IE for the Local Cell. If the *Power Local Cell Group Information* IE has not already been reported in a

previous RESOURCE STATUS INDICATION message, the Node B shall include this IE for the concerned Power Local Cell Group in this message. Furthermore, the sum of the Maximum DL Power Capability of all the Local Cells belonging to the same Power Local Cell Group shall not exceed the Maximum DL Power Capability of the concerned Power Local Cell Group.

If the Local Cell is HSDPA-capable when it becomes Existing, the Node B shall include the *HSDPA Capability* IE set to "HSDPA Capable" and may include *HS-DSCH MAC-d PDU Size Capability* IE for the Local Cell.

If the Local Cell is E-DCH-capable when it becomes Existing, the Node B shall include the *E-DCH Capability* IE set to "E-DCH Capable" for the Local Cell.

If the Local Cell is MBMS-capable when it becomes Existing, the Node B shall include the *MBMS Capability* IE set to "MBMS Capable" for the Local Cell.

[FDD - If the Local Cell is F-DPCH-capable when it becomes Existing, the Node B shall include the *F-DPCH Capability* IE set to "F-DPCH Capable" for the Local Cell.]

[FDD - If the Local Cell is both HSDPA-capable and E-DCH-capable when it becomes Existing, then the Node B shall include the *Continuous Packet Connectivity DTX-DRX Capability* IE set to "Continuous Packet Connectivity DTX-DRX Capable" for the Local Cell when Continuous Packet Connectivity DTX-DRX is supported.]

[FDD - If the Local Cell is both HSDPA-capable and E-DCH-capable when it becomes Existing, then the Node B shall include the *Continuous Packet Connectivity HS-SCCH less Capability* IE set to "Continuous Packet Connectivity HS-SCCH less Capable" for the Local Cell when Continuous Packet Connectivity HS-SCCH less is supported.]

[FDD - If the Local Cell is MIMO-capable when it becomes Existing, then the Node B shall include the *MIMO Capability* IE set to "MIMO Capable" for the Local Cell.]

[FDD - If the Local Cell is SixtyfourQAM DL-capable when it becomes Existing, then the Node B shall include the *SixtyfourQAM DL Capability* IE set to "SixtyfourQAM DL Capable" for the Local Cell.]

[FDD - If the Local Cell is Enhanced FACH-capable when it becomes Existing, the Node B shall include the *Enhanced FACH Capability* IE set to "Enhanced FACH Capable" for the Local Cell.]

[FDD - If the Local Cell is SixteenQAM UL-capable when it becomes Existing, then the Node B shall include the *SixteenQAM UL Capability* IE set to "SixteenQAM UL Capable" for the Local Cell.]

[1.28Mcps TDD - If the Local Cell is MBSFN Only Mode-capable when it becomes Existing, the Node B shall include the *MBSFN Only Mode Capability* IE set to "MBSFN Only Mode Capable" for the Local Cell.]

[FDD - If the Local Cell is F-DPCH Slot Format-capable when it becomes Existing, then the Node B shall include the *F-DPCH Slot Format Capability* IE set to " F-DPCH Slot Format Capable" for the Local Cell.]

Local Cell Deletion:

When a Local Cell is to be deleted in the Node B, i.e. becomes Not Existing, the Node B shall withdraw the Local Cell from the CRNC by sending a RESOURCE STATUS INDICATION message containing a "No Failure" Indication, the *Local Cell ID* IE and the *Add/Delete Indicator* IE set to "Delete". The Node B shall not withdraw a previously configured cell at the Node B that the CRNC had configured using the Cell Setup procedure, until the CRNC has deleted that cell at the Node B using the Cell Delete procedure.

Capability Change of a Local Cell:

When the capabilities of a Local Cell change at the Node B, the Node B shall report the new capability by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication and the *Local Cell ID* IE.

The Node B shall include the *Minimum DL Power Capability* IE when it is known by the Node B.

If the maximum DL power capability of the Local Cell has changed, the new capability shall be indicated in the *Maximum DL Power Capability* IE.

If the DL capability for supporting the minimum spreading factor has changed, the new capability shall be indicated in the *Minimum Spreading Factor* IE.

[TDD - If the availability of the Reference clock connected to a Local Cell has changed, the new availability condition shall be indicated in the *Reference Clock Availability* IE.]

The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

If the internal resource capabilities of the Local Cell are affected, it shall be reported in the following way:

- If the internal resource capabilities of the Local Cell are modelled as shared resources between Uplink and Downlink, the new capacity shall be reported in the *DL Or Global Capacity Credit* IE.

- If the internal resource capabilities of the Local Cell are modelled independently in the Uplink and Downlink direction, then the *DL Or Global Capacity Credit* IE and the *UL Capacity Credit* IE shall be present in the RESOURCE STATUS INDICATION.

If the Capacity Consumption Law for Common Channels has changed for the Local Cell, the new law shall be reported by the Node B in the *Common Channels Capacity Consumption Law* IE.

If the Capacity Consumption Law for Dedicated Channels has changed for the Local Cell, the new law shall be reported by the Node B in the *Dedicated Channels Capacity Consumption Law* IE.

[FDD - If the Capacity Consumption Law for E-DCH has changed for the Local Cell, the new law shall be reported by the Node B in the *E-DCH Capacity Consumption Law* IE.]

[TDD - If the Capacity Consumption Law for E-DCH has changed for the Local Cell, the new law shall be reported by the Node B in the *E-DCH TDD Capacity Consumption Law* IE.]

If the HSDPA capability has changed for the Local Cell, the new capability shall be indicated in the *HSDPA Capability* IE.

If the HS-DSCH MAC-d PDU Size Capability has changed for the Local Cell, the new capability shall be indicated in the *HS-DSCH MAC-d PDU Size Capability* IE.

If the E-DCH capability has changed for the Local Cell, the new capability shall be indicated in the *E-DCH Capability* IE. [FDD - The Node B shall include the *E-DCH Capability* IE if any of the E-DCH TTI2ms, SF or HARQ Combining capabilities has changed for the E-DCH capable Local Cell.]

If the MBMS capability has changed for the Local Cell, the new capability shall be indicated in the *MBMS Capability* IE.

[FDD - If the F-DPCH capability has changed for the Local Cell, the new capability shall be indicated in the *F-DPCH Capability* IE.]

[FDD - If the Continuous Packet Connectivity DTX-DRX capability has changed for the Local Cell that is both HSDPA-capable and E-DCH-capable, then the new capability shall be indicated in the *Continuous Packet Connectivity DTX-DRX Capability* IE. The Node B shall include the *Continuous Packet Connectivity DTX-DRX Capability* IE if the Max UE DTX Cycle supported by the Continuous Packet Connectivity DTX-DRX capable Local Cell has changed. If the Continuous Packet Connectivity HS-SCCH less capability has changed for the Local Cell that is both HSDPA-capable and E-DCH-capable, then the new capability shall be indicated in the *Continuous Packet Connectivity HS-SCCH less Capability* IE.]

[FDD - If the MIMO capability has changed for the Local Cell, then the new capability shall be indicated in the *MIMO Capability* IE.]

[FDD - If the SixtyfourQAM DL capability has changed for the Local Cell, then the new capability shall be indicated in the *SixtyfourQAM DL Capability* IE.]

[FDD - If the Enhanced FACH capability has changed for the Local Cell, the new capability shall be indicated in the *Enhanced FACH Capability* IE. The Node B shall include the *Enhanced FACH Capability* IE if the Enhanced PCH capability has changed for the Enhanced PCH capable Local Cell.]

[FDD - If the SixteenQAM UL capability has changed for the Local Cell, then the new capability shall be indicated in the *SixteenQAM UL Capability* IE.]

[1.28Mcps TDD - If the MBSFN Only Mode capability has changed for the Local Cell, the new capability shall be indicated in the *MBSFN Only Mode Capability* IE.]

[FDD - If the F-DPCH Slot Format capability has changed for the Local Cell, then the new capability shall be indicated in the *F-DPCH Slot Format Capability* IE.]

Capability Change of a Cell:

When the capabilities and/or resource operational state of a cell changes at the Node B, the Node B shall report the new capability and/or resource operational state by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication, the *Resource Operational State* IE and the *Availability Status* IE. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

Capability Change of a Common Physical Channel and/or Common Transport Channel:

The Node B shall not delete any common or dedicated channels due to the cell being "Disabled". For all affected common and dedicated channels, the Node B shall report the impact to the CRNC with the relevant procedures.

When the capabilities and/or resource operational state of common physical channels and/or common transport channels have changed, the Node B shall report the new capability and/or resource operational state by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication, the *Resource Operational State* IE and the *Availability Status* IE set to appropriate values for the affected channel(s). The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

When a power value for a common physical channel and/or a common transport channel becomes beyond the supported power value range due to a change in capability in the Node B, it shall be reported to the CRNC in the RESOURCE STATUS INDICATION message, with the *Resource Operational State* IE set to "Enabled", the *Availability Status* IE set to "Degraded" and the *Cause* IE set to "Power level not supported". Affected channels shall use the nearest power value that is supported.

[1.28Mcps TDD - Capability Change of a UpPCH channel:]

When the capabilities of UpPCH channels which are not configured in the timeslot of UpPTS on one or multiple frequencies have changed, the Node B may include the *UpPCH Information LCR* IE in the RESOURCE STATUS INDICATION message.

Capability Change of a Communication Control Port:

When the resource operational state of a Communication Control Port has changed, the Node B shall report the new resource operational state by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication and the *Communication Control Port ID* IE. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

Capability Change of HS-DSCH Resources:

When the resource operational state of the HS-DSCH resources has changed, the Node B shall report the new resource operational state by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

[1.28Mcps TDD - For a multi-frequency cell, the Node B may include the *UARFCN* IE in the *HS-DSCH Resources Information* IE to report the status of the HS-DSCH resources on the indicated frequency, the Node B may also not include any *UARFCN* IE in the *HS-DSCH Resources Information* IE to report the status of the HS-DSCH resources for the whole cell.]

Capability Change of E-DCH Resources:

When the resource operational state of the E-DCH resources has changed, the Node B shall report the new resource operational state by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

[1.28Mcps TDD - For a multi-frequency cell, the Node B may include the *UARFCN* IE in the *E-DCH Resources Information* IE to report the status of the E-DCH resources on the indicated frequency, the Node B may also not include any *UARFCN* IE in the *E-DCH Resources Information* IE to report the status of the E-DCH resources for the whole cell.]

Capability Change of a Local Cell Group:

When the resource capabilities of a Local Cell Group change at the Node B, the Node B shall report the new capability by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication and the *Local Cell Group Information* IE reporting the change. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to an appropriate value. If the RESOURCE STATUS INDICATION message contains both the *DL Or*

Global Capacity Credit IE and the *UL Capacity Credit* IE, then the internal resource capabilities of the Node B are modelled independently in the Uplink and Downlink direction. If the *UL Capacity Credit* IE is not present, then the internal resource capabilities of the Node B are modelled as shared resources between Uplink and Downlink.

If the Capacity Consumption Law for Common Channels has changed for the Local Cell Group, the new law shall be reported by the Node B in the *Common Channels Capacity Consumption Law* IE.

If the Capacity Consumption Law for Dedicated Channels has changed for the Local Cell Group, the new law shall be reported by the Node B in the *Dedicated Channels Capacity Consumption Law* IE.

[FDD - If the Capacity Consumption Law for E-DCH has changed for the Local Cell Group, the new law shall be reported by the Node B in the *E-DCH Capacity Consumption Law* IE.]

[TDD - If the Capacity Consumption Law for E-DCH has changed for the Local Cell Group, the new law shall be reported by the Node B in the *E-DCH TDD Capacity Consumption Law* IE.]

Capability Change of a Power Local Cell Group:

When the power capability of a Power Local Cell Group changes at the Node B, the Node B shall report the new capability by sending a RESOURCE STATUS INDICATION message with the *Indication Type* IE set equal to "Service Impacting" and the *Power Local Cell Group Information* IE reporting the change. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to an appropriate value. In this case, the Node B shall also include the *Maximum DL Power Capability* IE in the *Local Cell Information* IE for all the Local Cells belonging to the concerned Power Local Cell Group. Furthermore, the sum of the Maximum DL Power Capability of all the Local Cells belonging to the same Power Local Cell Group shall not exceed the Maximum DL Power Capability of the concerned Power Local Cell Group.

[1.28Mcps TDD - For a multi-frequency cell, when a cell has been successfully setup but a secondary frequency failure has occurred, the Node B shall report the status of the secondary frequency indicated by *UARFCN* IE on which the failure occurred by immediately sending a RESOURCE STATUS INDICATION message with the *Indication Type* IE set equal to "Service Impacting", the *Resource Operational State* IE and the *Availability Status* IE. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to an appropriate value.]

General:

When the RESOURCE STATUS INDICATION message is used to report an error, only one cause value for all reported objects can be sent in one message. When the RESOURCE STATUS INDICATION message is used to clear errors, only all errors for one object can be cleared per message. It is not possible to clear one out of several errors for one object.

[1.28Mcps TDD - For a multi-frequency cell, the Node B should report the status of the resources used for each frequency. A reporting method can be found in Annex E.]

8.2.15.3 Abnormal Conditions

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8.2.16 System Information Update

8.2.16.1 General

The System Information Update procedure performs the necessary operations in order for the Node B to apply the correct scheduling of and/or to include the appropriate contents to the system information segments broadcast on the BCCH.

8.2.16.2 Successful Operation

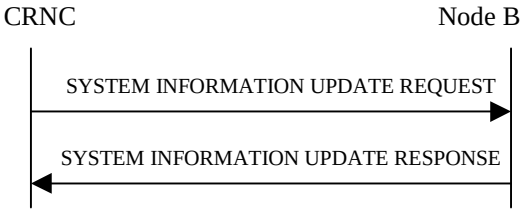


Figure 22: System Information Update procedure, Successful Operation

The procedure is initiated with a SYSTEM INFORMATION UPDATE REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

The Node B shall consider the requested updates to the BCCH schedule in the same order as the MIB/SB/SIB information is included in the SYSTEM INFORMATION UPDATE REQUEST message.

If the SYSTEM INFORMATION UPDATE REQUEST message includes the *BCCH Modification Time* IE, the updates to the BCCH schedule (possibly consisting of IB occurrence additions, IB occurrence deletions and IB occurrence contents updates) indicated in the SYSTEM INFORMATION UPDATE REQUEST message shall be applied by the Node B at the first time instance starting from the SFN value set by the *BCCH Modification Time* IE. If no *BCCH Modification Time* IE is included, the updates to the BCCH schedule shall be applied as soon as possible.

Information Block addition:
If the SYSTEM INFORMATION UPDATE REQUEST message includes segments of a certain MIB/SB/SIB, the Node B shall assume that all segments for that Information Block are included in the message and ordered with increasing Segment Index (starting from 0). For each included segment, segment type information and *IB SG POS* IE are also given in the SYSTEM INFORMATION UPDATE REQUEST message.

The Node B shall determine the correct cell system frame number(s) (SFN) for transmission of the segments of system information, from the scheduling parameters provided in the SYSTEM INFORMATION UPDATE REQUEST message. The SFN for transmitting the segments shall be determined by the *IB SG REP* IE and *IB SG POS* IE such that:

- SFN mod IB_SG_REP = IB_SG_POS

If the SYSTEM INFORMATION UPDATE REQUEST message contains Master Information Block (MIB) segments in addition to SIB or SB segments, the MIB segments shall first be sent in the physical channel by the Node B. Once these MIB segments have been sent in the physical channel, the updated SB/SIB segments shall then be sent in the physical channel.

Only if the inclusion of each new IB segment in the BCCH schedule leads to a valid segment combination according to [18], the Node B shall accept the system information update.

If the *SIB Originator* IE value is set to "Node B", the Node B shall create the SIB segment of the SIB type given by the *IB Type* IE and autonomously update the SIB segment and apply the scheduling and repetition as given by the *IB SG REP* IE and *IB SG POS* IE.

SIBs originating from the Node B can only be SIBs containing information that the Node B can obtain on its own.

Information Block deletion:
If an IB Deletion is indicated in an instance of *MIB/SB/SIB information* IE in the SYSTEM INFORMATION UPDATE REQUEST message, the Node B shall delete the IB indicated by the *IB Type* IE and *IB OC ID* IE from the transmission schedule on BCCH.

Information Block update:
If the SYSTEM INFORMATION UPDATE REQUEST message contains segments for an IB without *IB SG REP* IE and *IB SG POS* IE and there is already an IB in the BCCH schedule with the same IB Type and IB OC ID which is not requested to be deleted from the BCCH schedule by an IB deletion indicated in a *MIB/SB/SIB information* IE repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB segments are included, then the Node B shall only update the contents of the IB segments without any modification in segment scheduling.

If the Node B successfully completes the updating of the physical channel scheduling cycle according to the parameters given in the SYSTEM INFORMATION UPDATE REQUEST message, it shall respond to the CRNC with a SYSTEM INFORMATION UPDATE RESPONSE message.

8.2.16.3 Unsuccessful Operation

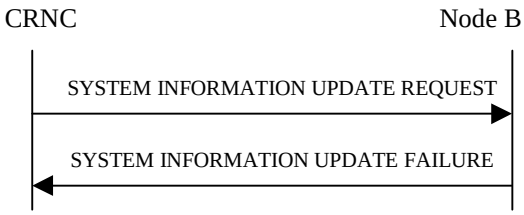


Figure 23: System Information Update procedure, Unsuccessful Operation

If the Node B is unable to update the physical channel scheduling cycle according to all the parameters given in the SYSTEM INFORMATION UPDATE REQUEST message, it shall respond with a SYSTEM INFORMATION UPDATE FAILURE message with an appropriate cause value.

The Node B shall not incorporate any of the requested changes into the physical channel scheduling cycle, and the previous system information configuration shall remain intact.

Typical cause values are:

Radio Network Layer Cause:

- SIB Origination in Node B not Supported

Miscellaneous Cause:

- Hardware failure
- Control Processing overload
- O&M Intervention

8.2.16.4 Abnormal Conditions

The Node B shall reject, with the cause value "SIB origination in Node B not supported", requests for Node B originated system information blocks that make use of a value tag.

The Node B shall reject the requested update with cause value "BCCH scheduling error" if:

- After having handled a certain *MIB/SB/SIB information* IE repetition, an illegal BCCH schedule results;
- If a *MIB/SB/SIB Information* IE repetition includes an *IB SG REP* IE or an *IB SG POS* IE and there is already an IB in the BCCH schedule with the same IB Type and IB OC ID which is not requested to be deleted from the BCCH schedule by an IB deletion indicated in a *MIB/SB/SIB information* IE repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB addition is indicated. This rule shall apply even if the scheduling instructions in *IB SG REP* IE and *IB SG POS* IE were the same as the current scheduling instructions for the concerned IB;
- If a *MIB/SB/SIB Information* IE repetition includes no *IB SG REP* IE and *IB SG POS* IE and there is no IB in the BCCH schedule with the same IB Type and IB OC ID;
- If a *MIB/SB/SIB Information* IE repetition includes no *IB SG REP* IE and *IB SG POS* IE and there is already an IB in the BCCH schedule with the same IB Type and IB OC ID but it is requested to be deleted from the BCCH schedule by an IB deletion indicated in a *MIB/SB/SIB information* IE repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB addition is indicated.

8.2.17 Radio Link Setup

8.2.17.1 General

This procedure is used for establishing the necessary resources for a new Node B Communication Context in the Node B.

[FDD - The Radio Link Setup procedure is used to establish one or more radio links. The procedure establishes one or more DCHs on all radio links, and in addition, it can include the establishment of an HS-DSCH on one radio link and it can include the establishment of an E-DCH on one or more radio links.]

[TDD - The Radio Link Setup procedure is used to establish one radio link including one or more transport channels. The transport channels can be a mix of DCHs, DSCHs, and USCHs, or DCHs and an HS-DSCH, or DCHs, an HS-DSCH and an E-DCH, including also combinations where one or more transport channel types are not present.]

8.2.17.2 Successful Operation

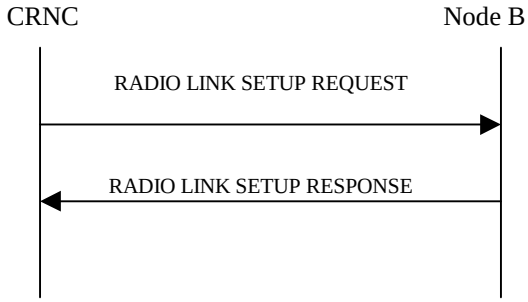


Figure 24: Radio Link Setup procedure, Successful Operation

The procedure is initiated with a RADIO LINK SETUP REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception of the RADIO LINK SETUP REQUEST message, the Node B shall reserve necessary resources and configure the new Radio Link(s) according to the parameters given in the message.

The Node B shall prioritise resource allocation for the RL(s) to be established according to Annex A.

Transport Channels Handling:

DCH(s):

[TDD - If the *DCH Information* IE is present, the Node B shall configure the new DCH(s) according to the parameters given in the message.]

If the RADIO LINK SETUP REQUEST message includes a *DCH Information* IE with multiple *DCH Specific Info* IEs, then the Node B shall treat the DCHs in the *DCH Information* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only", the Node B shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.

If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only", the Node B shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.

[FDD - For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Transport channel BER from that DCH shall be the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE, ref. [16]. If the *QE-Selector* IE is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [16].]

For a set of co-ordinated DCHs, the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" shall be used for the QE in the UL data frames, ref. [16]. [FDD - If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE, ref. [16]. If all DCHs have *QE-Selector* IE set to "non-selected", the Physical channel BER shall be used for the QE, ref. [16]].

The Node B shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs as the FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the configuration.

The Node B shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window Startpoint in the user plane for the DCH or the set of co-ordinated DCHs in the configuration.

The Node B shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window Endpoint in the user plane for the DCH or the set of co-ordinated DCHs in the configuration.

The received *Frame Handling Priority* IE specified for each Transport Channel should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new RL(s) has been activated.

If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related DCH or set of co-ordinated DCHs.

[FDD - The *Diversity Control Field* IE indicates for each RL (except the first RL in the message) whether the Node B shall combine the concerned RL or not.

- If the *Diversity Control Field* IE is set to"May", the Node B shall decide for either of the alternatives.
- If the *Diversity Control Field* IE is set to "Must", the Node B shall combine the RL with one of the other RL.
- If the *Diversity Control Field* IE is set to "Must not", the Node B shall not combine the RL with any other existing RL.

The signalled *Diversity Control Field* IE is applied to Dedicated Transport Channels (DCH) only. In case of E-DCH it shall always be assumed to be set to "Must". When a new RL is to be combined, the Node B shall choose which RL(s) to combine it with.]

[FDD - In the RADIO LINK SETUP RESPONSE message, the Node B shall indicate for each RL with the Diversity Indication in the *RL Information Response* IE whether the RL is combined or not.]

- [FDD - In case of not combining with a RL previously listed in the RADIO LINK SETUP RESPONSE message or for the first RL in the RADIO LINK SETUP RESPONSE message, and if the *DCH Indicator For E-DCH-HSDPA Operation* IE is not included in the RADIO LINK SETUP REQUEST message, the Node B shall:]
 - [FDD - include in the *DCH Information Response* IE in the RADIO LINK SETUP RESPONSE message for which the *Transport Bearer Not Requested Indicator* IE was not included the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]
 - [FDD - include in the RADIO LINK SETUP RESPONSE message the *Transport Bearer Not Setup Indicator* IE for every DCH for which establishment of a transport bearer has not taken place as a result of information in the *Transport Bearer Not Requested Indicator* IE in the RADIO LINK SETUP REQUEST message.]
- [FDD - For the first E-DCH RL in the RADIO LINK SETUP RESPONSE message, the Node B shall:]
 - [FDD - include in the *E-DCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each E-DCH MAC-d flow of this RL.]
 - [FDD - include in the RADIO LINK SETUP RESPONSE message the *Transport Bearer Not Setup Indicator* IE for every E-DCH MAC-d flow for which establishment of a transport bearer has not

taken place as a result of information in the *Transport Bearer Not Requested Indicator* IE in the RADIO LINK SETUP REQUEST message.]

- [FDD - Otherwise in case of combining, the *RL ID* IE indicates (one of) the RL(s) previously listed in this RADIO LINK SETUP RESPONSE message with which the concerned RL is combined and if the ALCAP is not used and the transport bearer for the DCH is already established, the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE included in the *RL Information* IE for a specific RL in the RADIO LINK SETUP REQUEST message, shall not be used. In case of combining an E-DCH RL, one of the RLs previously listed in this RADIO LINK SETUP RESPONSE message including the *E-DCH FDD Information Response* IE shall be regarded as the RL with which the concerned E-DCH RL is combined.]

[TDD - The Node B shall include in the *DCH Information Response* IE in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]

[TDD - If an E-DCH has been established, the Node B shall include in the *E-DCH TDD Information Response* IE in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each E-DCH MAC-d flow of the RL.]

In the case of a set of co-ordinated DCHs, the *Binding ID* IE and the *Transport Layer Address* IE shall be specified for only one of the DCHs in the set of co-ordinated DCHs [FDD - where the *Transport Bearer Not Requested Indicator* IE was not included].

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer shall not be Established" for a DCH, then the Node B shall not establish a transport bearer for the concerned DCH and shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH in the RADIO LINK SETUP RESPONSE message.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for a DCH and:]

- [FDD - if the Node B establishes a transport bearer for the concerned DCH, the Node B shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the DCH being established.]

- [FDD - if the Node B does not establish a transport bearer for the concerned DCH, the Node B shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH in the RADIO LINK SETUP RESPONSE message.]

[TDD - DSCH(s)]:

[TDD - If the *DSCH Information* IE is present, the Node B shall configure the new DSCH(s) according to the parameters given in the message.]

[TDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *DSCH Information* IE, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the DSCH.]

[TDD - The Node B shall include in the *DSCH Information Response* IE in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and the *Transport Layer Address* IE for the transport bearer to be established for each DSCH of this RL.]

[TDD - If the RADIO LINK SETUP REQUEST message includes the *TNL QoS* IE in the *DSCH TDD Information* IE and if ALCAP is not used, the Node B may use the *TNL QoS* IE to determine the transport bearer characteristics to apply in the uplink for the related DSCH.]

[TDD - USCH(s)]:

[TDD - If the *USCH Information* IE is present, the Node B shall configure the new USCH(s) according to the parameters given in the message.]

[TDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *USCH Information* IE, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the USCH.]

[TDD - If the RADIO LINK SETUP REQUEST message includes the *TNL QoS* IE in the *USCH Information* IE and if ALCAP is not used, the Node B may use the *TNL QoS* IE to determine the transport bearer characteristics to apply in the uplink for the related USCH.]

[TDD -If the *USCH Information* IE is present, the Node B shall include in the *USCH Information Response* IE in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and the *Transport Layer Address* IE for the transport bearer to be established for each USCH of this RL.]

HS-DSCH:

If the *HS-DSCH Information* IE is present in the RADIO LINK SETUP REQUEST message, then:

- The Node B shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.

- The Node B shall include the *HARQ Memory Partitioning* IE in the [FDD - *HS-DSCH FDD Information Response* IE] [TDD - *HS-DSCH TDD Information Response* IE] in the RADIO LINK SETUP RESPONSE message. [FDD - The *HARQ Memory Partitioning* IE shall either contain the *HARQ Memory Partitioning Information Extension For MIMO* IE or the *Number of Processes* IE set to a value higher than "8", if the *MIMO Activation Indicator* IE is included in the *HS-DSCH Information* IE.]

- The Node B shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of transport bearer for every HS-DSCH MAC-d flow being established.

- If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *HS-DSCH Information* IE for an HS-DSCH MAC-d flow, then the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the concerned HS-DSCH MAC-d flow.

- If the RADIO LINK SETUP REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK SETUP REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- If the RADIO LINK SETUP REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the [FDD - *HS-DSCH FDD Information Response* IE] [TDD - *HS-DSCH TDD Information Response* IE] in the RADIO LINK SETUP RESPONSE message for every HS-DSCH MAC-d flow being established, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24]. If RADIO LINK SETUP REQUEST message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to "Flexible MAC-d PDU Size", then Node B shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer received in RADIO LINK SETUP REQUEST in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the Node B may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *Measurement Power Offset* IE in the *HS-DSCH Information* IE, then the Node B shall use the measurement power offset as described in ref [10], subclause 6A.2.]

- [FDD - The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [TDD - The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] [7.68Mcps TDD - *HS-SCCH Specific Information Response 7.68Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated HARQ Preamble Mode as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the Node B shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK SETUP RESPONSE message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the Node B shall not include the *HARQ Preamble Mode Activation Indicator* IE in the RADIO LINK SETUP RESPONSE message.]

- [1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *HS-SICH SIR Target* IE in the *HS-DSCH Information* IE, the Node B shall use this value to determine the HS-SICH SIR Target. The *HS-SICH SIR Target* IE indicates the received UL SIR target of HS-SICH NACK for this UE.]

- If the RADIO LINK SETUP REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated format in user plane frame structure for HS-DSCH channels [24] and MAC-hs [32].

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.

- [FDD - If the *Serving Cell Change CFN* IE is included in the RADIO LINK SETUP REQUEST message, then the Node B shall activate the resources that are allocated for the new serving HS-DSCH Radio Link at the next coming CFN with a value equal to the value requested by the RNC.]

- [FDD - If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the Node B shall activate the MIMO mode for the HS-DSCH Radio Link and the Node B shall decide the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO N/M Ratio* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the Node B may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the Node B shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE with value set to "not allowed", then the Node B shall not use 64 QAM for the HS-DSCH Radio Link.]

- [1.28Mcps TDD - If the *TSN-Length* IE is included in the *HS-DSCH TDD Information* IE, then the IE is used to indicate the TSN bits applied to the MAC-hs PDU frame.]

- [1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *Number of Supported Carriers* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE, the Node B shall use this information to allocate HSDPA resources over multiple carriers for the UE.]

- [1.28Mcps TDD - If the Node B allows UE to use HSDPA resources distributed over multiple carriers, the Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH over

multiple carriers and include the *HS-SCCH Specific Information Response LCR per UARFCN* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [1.28Mcps TDD - If the Node B allows UE to use HSDPA resources distributed over multiple carriers, the Node B shall include the *HARQ Memory Partitioning per UARFCN* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [1.28Mcps TDD - If the Node B allows UE to apply HSDPA resources distributed over multiple carriers, the Node B may indicate the number of carriers actually used by the UE and include the *Multi-Carrier number* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [1.28Mcps TDD - If the Node B allows UE to use HSDPA resources distributed over multiple carriers, the Node B may include the *UsedFrequency* IE in the *HS-SCCH Specific Information Response LCR* IE in the RADIO LINK SETUP RESPONSE message.]

- [1.28Mcps TDD - If the Node B allows UE to use HSDPA resources distributed over multiple carriers, the Node B may include the *UARFCN* IE in the *HS-SCCH Specific Information Response LCR per UARFCN* IE in the RADIO LINK SETUP RESPONSE message.]

[FDD - E-DCH]:

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DCH Minimum Set E-TFCI* IE the Node B shall use the value for the related resource allocation operation.]

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DPDCH Power Interpolation* IE, the Node B shall use the value to determine the applicable E-DPDCH power formula defined in [10]. If the *E-DPDCH Power Interpolation* IE is not present, the Node B shall use the E-DPDCH power extrapolation formula defined in [10].]

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-TFCI Boost Information* IE, the Node B shall use the information according to [10]. If the *E-TFCI Boost Information* IE is not present, the Node B shall use the E-TFCI BetaEC Boost value "127" in the algorithm defined in [10].]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK SETUP REQUEST message:]

- [FDD - The Node B shall setup the requested E-DCH resources on the Radio Links indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the Node B shall use this information for the related resource allocation operation.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *RL specific E-DCH FDD Information* IE for an E-DCH MAC-d flow, then if the *Transport Bearer Not Requested Indicator* IE is not included for this E-DCH MAC-d flow, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the concerned E-DCH MAC-d flow. The Node B shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for every E-DCH MAC-d flow being established for which the *Transport Bearer Not Requested Indicator* IE was not included.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer shall not be Established" for an E-DCH MAC-d flow, then the Node B shall not establish a transport bearer for the concerned E-DCH MAC-d flow and shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding E-DCH MAC-d flow in the RADIO LINK SETUP RESPONSE message.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for an E-DCH MAC-d flow and:]

 - [FDD - if the Node B establishes a transport bearer for the concerned E-DCH MAC-d flow, the Node B shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and

Transport Layer Address IE for establishment of a transport bearer for the E-DCH MAC-d flow being established.]

- [FDD - if the Node B does not establish a transport bearer for the concerned E-DCH MAC-d flow, the Node B shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding E-DCH MAC-d flow in the RADIO LINK SETUP RESPONSE message.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH FDD Information* IE, then the Node B shall use this information to optimise MAC-e scheduling decisions for the related reordering queue.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]

- [FDD - If in the RADIO LINK SETUP REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD - If in the RADIO LINK SETUP REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Scheduled Transmission Grant" the Node B shall assume scheduled grants being configured for the concerned E-DCH MAC-d flow.]

- [FDD - If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD - The Node B may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the Node B may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK SETUP RESPONSE message for every RL indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *Serving E-DCH RL* IE indicating that the Serving E-DCH RL is in this Node B]

 - [FDD - The Node B shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the corresponding RL and include these E-RNTI identifiers and the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK SETUP RESPONSE message.]

 - [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK SETUP RESPONSE message for the initial grant for the serving E-DCH RL.]

 - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

 - [FDD - The Node B may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK SETUP RESPONSE message for the serving E-DCH RL.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the Node B shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the Node B shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH ReferencePower Offset* IE, then the Node B may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Power Offset for Scheduling Info* IE, then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD - If the *Serving Cell Change CFN* IE is included in the RADIO LINK SETUP REQUEST message, then the Node B shall activate the resources that are allocated for the new serving E-DCH Radio Link at the next coming CFN with a value equal to the value requested by the RNC.]

- [FDD - If the RADIO LINK SETUP REQUEST message includes the *SixteenQAM UL Operation Indicator* IE, the Node B shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]

 - [FDD - If SixteenQAM UL Operation is activated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [32]. If SixteenQAM UL Operation is deactivated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [32].]

[FDD - E-DCH - HS-DSCH]:

[FDD - If the RADIO LINK SETUP REQUEST message includes the DCH Indicator For E-DCH-HSDPA Operation IE, then the Node B shall ignore the DCH Information IE in the RADIO LINK SETUP REQUEST message.]

[TDD - E-DCH]:

[TDD - If the [3.84Mcps TDD - *E-DCH Information* IE] [1.28Mcps TDD - *E-DCH Information 1.28Mcps* IE][7.68Mcps TDD - *E-DCH Information 7.68Mcps* IE]is present in the RADIO LINK SETUP REQUEST message:]

- [TDD - The Node B shall setup the requested E-DCH resources on the Radio Link indicated by the *E-DCH Serving RL* IE.]

- [TDD - If the *TNL QoS* IE is included in the *E-DCH MAC-d Flows Information TDD* IE for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [TDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *E-DCH MAC-d Flows Information TDD* IE for an E-DCH MAC-d flow,

then the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the concerned E-DCH MAC-d flow.]

- [TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flows Information TDD* IE, the Node B shall use this information for the related resource allocation operation.]

- [TDD - If in the RADIO LINK SETUP REQUEST message the *E-DCH Grant Type* IE in the *E-DCH MAC-d Flows Information TDD* IE is set to "Non-scheduled" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants are configured for that E-DCH MAC-d flow and shall use the information within the [3.84Mcps - *E-DCH Non-scheduled Grant Information TDD* IE] [1.28Mcps - *E-DCH Non-scheduled Grant Information LCR TDD* IE] [7.68Mcps - *E-DCH Non-scheduled Grant Information 7.68Mcps TDD* IE], if included, for the related resource allocation operation.]

- [TDD - If in the RADIO LINK SETUP REQUEST message the *E-DCH Grant Type* IE in the *E-DCH MAC-d Flows Information TDD* IE is set to "Scheduled" the Node B shall assume that it may issue scheduled grants for the concerned E-DCH MAC-d flow.]

- [TDD - If the RADIO LINK SETUP REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flows Information TDD* IE, then the Node B shall use this information to optimise MAC-e scheduling decisions for the related queue.]

- [3.84Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH TDD Maximum Bitrate* IE in the *E-DCH TDD Information* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Physical Layer Category LCR* IE or *Extended E-DCH Physical Layer Category LCR* IE in the *E-DCH TDD Information LCR* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [7.68Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH TDD Maximum Bitrate 7.68Mcps* IE in the *E-DCH TDD Information 7.68Mcps* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Processing Overload Level* IE in the [3.84Mcps TDD - *E-DCH TDD Information* IE] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps* IE][1.28Mcps TDD - *E-DCH TDD Information LCR* IE], then if the Node B could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]

- [TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Power Offset for Scheduling Info* IE in the [3.84Mcps TDD - *E-DCH TDD Information* IE] [1.28Mcps TDD - *E-DCH TDD Information LCR* IE] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps* IE], then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [3.84Mcps TDD and 7.68Mcps TDD - The Node B shall allocate an E-RNTI identifier and include the E-RNTI identifier and the E-AGCH(s), [1.28Mcps - E-HICHs] assigned in the *E-DCH Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

Physical Channels Handling:

[FDD - Compressed Mode]:

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the Node B shall store the information about the Transmission Gap Pattern Sequences to be used in the Compressed Mode Configuration. This Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or the Node B Communication Context is deleted.]

[FDD - If the *Downlink Compressed Mode Method* IE in one or more Transmission Gap Pattern Sequence is set to "SF/2" in the RADIO LINK SETUP REQUEST message, the Node B shall use or not the alternate scrambling code as indicated for each DL Channelisation Code in the *Transmission Gap Pattern Sequence Code Information* IE.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE and the *Active Pattern Sequence Information* IE, the Node B shall use the information to activate the indicated Transmission Gap Pattern Sequence(s) in the new RL. The received *CM Configuration Change CFN* refers to the latest passed CFN with that value The Node B shall treat the received *TGCFN* IEs as follows:]

- [FDD - If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the Node B shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD - If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE has already passed, the Node B shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD - For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the Node B shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE and the *Active Pattern Sequence Information* IE and the concerned Node B Communication Context is configured to use F-DPCH in the downlink, the Node B shall ignore, when activating the Transmission Gap Pattern Sequence(s), the information provided by the *Downlink Compressed Mode Method* IE if included for the concerned Transmission Gap Pattern Sequence(s).]

[FDD - DL Code Information]:

[FDD - When more than one DL DPDCH is assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *p*th to "*PhCH number p*".]

[TDD - PDSCH RL ID]:

[TDD - If the *PDSCH RL ID* IE is included in RADIO LINK SETUP REQUEST message, the Node B shall use the PDSCH RL ID as an identifier for the PDSCH and/or PUSCH in this radio link.]

[FDD - Phase Reference Handling]:

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Primary CPICH Usage For Channel Estimation* IE and has the value "Primary CPICH shall not be used", the Node B shall assume that the UE is not using the Primary CPICH for channel estimation. If the RADIO LINK SETUP REQUEST message does not include the *Primary CPICH Usage For Channel Estimation* IE or includes the *Primary CPICH Usage For Channel Estimation* IE and has the value "Primary CPICH may be used", the Node B shall assume that the UE may use the Primary CPICH for channel estimation.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Secondary CPICH Information* IE, the Node B shall assume that the UE may use the Secondary CPICH indicated by the *Common Physical Channel ID* IE for channel estimation.]

General:

[FDD - If the *Propagation Delay* IE and optionally the *Extended Propagation Delay* IE are included, the Node B may use this information to speed up the detection of L1 synchronisation.]

[FDD - The *UL SIR Target* IE included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control.]

[1.28Mcps TDD - The *UL SIR Target* IE included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control according [19] and [21].]

[FDD - If the received *Limited Power Increase* IE is set to "Used", the Node B shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control.]

[1.28Mcps TDD - If the *UL CCTrCH Information* IE includes the *TDD TPC UL Step Size* IE, the Node B shall configure the uplink TPC step size according to the parameters given in the message.]

[1.28 Mcps TDD - The Node B shall configure the HS-SCCH TPC step size to the same value as the *TDD TPC DL Step Size* IE of the lowest numbered DL CCTrCH whose *DL CCTrCH Information* IE includes the *TDD TPC DL Step Size* IE.]

[1.28Mcps TDD - If the *UL Timeslot Information LCR* IE includes the *PLCCH Information* IE, the Node B shall transmit TPC /SS bits on a PLCCH according to the parameters given in the message.]

[FDD - DPCH Handling]:

[FDD - If the *UL DPDCH Indicator For E-DCH Operation* IE is set to "UL DPDCH not present", the *Min UL Channelisation Code Length* IE, the *Puncture Limit* IE and the *TFCS* IE within the *UL DPCH Information* IE shall be ignored.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *DL DPCH Information* IE, then the Node B shall configure the concerned Node B Communication Context to use DPCH in the downlink, i.e. with a DL DPCCH and a DL DPDCH.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *F-DPCH Information* IE, then the Node B shall configure the concerned Node B Communication Context to use F-DPCH in the downlink, i.e. with transmission of only the TPC field.]

[FDD - Continuous Packet Connectivity Handling]:

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information* IE, then:]

- [FDD - The Node B shall configure the concerned Node B Communication Context for DTX operation according to [10].]
- [FDD - If *DRX Information* IE is included in the *Continuous Packet Connectivity DTX-DRX Information* IE, then the Node B shall configure the concerned Node B Communication Context for DRX operation according to [10].]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Continuous Packet Connectivity HS-SCCH less Information* IE, then:]

- [FDD - The Node B shall configure the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE for Continuous Packet Connectivity HS-SCCH less operation according to [10].]
- [FDD - The Node B shall allocate the HS-PDSCH codes needed for HS-SCCH less operation and include the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the RADIO LINK SETUP RESPONSE message.]
- [FDD - If at least one of *HS-PDSCH Second Code Support* IE is set to "True", then the Node B shall include *HS-PDSCH Second Code Index* IE in the RADIO LINK SETUP RESPONSE message.]

Radio Link Handling:

[FDD - Transmit Diversity]:

[FDD - When the *Diversity Mode* IE is set to "*STTD*"or "*Closedloop mode1*", the Node B shall activate/deactivate the Transmit Diversity for each Radio Link in accordance with the *Transmit Diversity Indication* IE]

DL Power Control:

[FDD - The Node B shall start any DL transmission using the initial DL power specified in the message on each DL DPCH or on the F-DPCH of the RL until either UL synchronisation on the Uu interface is achieved for the RLS or Power Balancing is activated. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10],

subclause 5.2.1.2) and the power control procedure (see subclause 8.3.7), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message. If the Node B Communication Context is configured to use DPCH in the downlink, during compressed mode, the δP_{curr}, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[FDD - If the *DPC Mode* IE is present in the RADIO LINK SETUP REQUEST message, the Node B shall apply the DPC mode indicated in the message and be prepared that the DPC mode may be changed during the lifetime of the RL. If the *DPC Mode* IE is not present in the RADIO LINK SETUP REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]

[3.84 Mcps TDD and 7.68Mcps TDD - The Node B shall determine the initial CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Initial DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the initial CCTrCH DL power, otherwise the initial CCTrCH DL power is the *Initial DL Transmission Power* IE included in the *RL Information* IE. The Node B shall start any DL transmission on each DCH type CCTrCH using the initial CCTrCH DL power, as determined above, on each DL DPCH and on each Time Slot of the CCTrCH until the UL synchronisation on the Uu interface is achieved for the CCTrCH. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 4.2.3.4), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.]

[3.84 Mcps TDD and 7.68Mcps TDD - The Node B shall determine the maximum DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum DL Power* IE included in the *RL Information* IE.]

[3.84 Mcps TDD and 7.68Mcps TDD - The Node B shall determine the minimum DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum DL Power* IE included in the *RL Information* IE.]

[3.84Mcps TDD and 7.68Mcps TDD - The initial power, maximum power, and minimum power for DSCH type CCTrCH shall be determined as follows:

- If the DSCH type CCTrCH is paired with an uplink CCTrCH(s) for inner loop power control, the minimum, maximum and initial power for each PDSCH is determined in the same way as described above for DCH type CCTrCHs.

- If the DSCH type CCTrCH is not paired with an uplink CCTrCH(s) for inner loop power control, the PDSCH transmission power is DSCH Data Frame Protocol signalled [24], with the maximum value determined in the same way as described above for DCH type CCTrCHs. The minimum and initial powers, however, are subject to control by the CRNC via the frame protocol].

[1.28 Mcps TDD - The Node B shall determine the initial DL power for each timeslot within the DCH type CCTrCH by the following rule: If the *Initial DL Transmission Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power for the Initial DL Power and ignore the *DL Time Slot ISCP info LCR* IE, otherwise the initial DL Power is the *Initial DL Transmission Power* IE included in the *RL Information* IE and if *DL Time Slot ISCP info LCR* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged. The Node B shall start any DL transmission on each timeslot within each DCH type CCTrCH using the initial DL power, as determined above, on each DL DPCH and on each timeslot of the CCTrCH until the UL synchronisation on the Uu interface is achieved for the CCTrCH. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.]

[1.28 Mcps TDD - The Node B shall determine the maximum DL power for each timeslot within the DCH type CCTrCH by the following rule: If the *Maximum DL Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum DL Power* IE included in the *RL Information* IE.]

[1.28 Mcps TDD - The Node B shall determine the minimum DL power for each timeslot within the DCH type CCTrCH by the following rule: If the *Minimum DL Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum DL Power* IE included in the *RL Information* IE.]

[1.28Mcps TDD - The Node B shall determine the initial power for each timeslot within the DSCH type CCTrCH by the following rule: If both the *CCTrCH Initial DL Transmission Power* IE, included in the *DL CCTrCH Information* IE, and the *DL Time Slot ISCP Info LCR* IE, included in the *RL Information* IE, are included then the Node B shall use that power for the PDSCH and ignore the *Initial DL Transmission Power* IE included in the *RL Information* IE, otherwise the initial DL Power is the *Initial DL Transmission Power* IE included in the *RL Information* IE and if *DL Time Slot ISCP info LCR* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged. The Node B shall start any DL transmission on each timeslot within each DSCH type CCTrCH using the initial DL power, as determined above, on each DL PDSCH and on each timeslot of the CCTrCH until the UL synchronisation on the Uu interface is achieved for the CCTrCH. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.]

[1.28 Mcps TDD - The Node B shall determine the maximum DL power for each timeslot within the DSCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE, included in the *DL CCTrCH Information* IE, is included then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum DL Power* IE included in the *RL Information* IE.]

[1.28 Mcps TDD - The Node B shall determine the minimum DL power for each timeslot within the DSCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE, included in the *DL CCTrCH Information* IE, is included then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum DL Power* IE included in the *RL Information* IE.]

[3.84Mcps TDD and 7.68Mcps TDD - If the *DL Time Slot ISCP Info* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged.]

[FDD - If the received *Inner Loop DL PC Status* IE is set to "Active", the Node B shall activate the inner loop DL power control for all RLs. If *Inner Loop DL PC Status* IE is set to "Inactive", the Node B shall deactivate the inner loop DL power control for all RLs according to ref. [10].]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *DL Power Balancing Information* IE and the *Power Adjustment Type* IE is set to "Common" or "Individual", the Node B shall activate the power balancing, if activation of power balancing by the RADIO LINK SETUP REQUEST message is supported, according to subclause 8.3.7, using the *DL Power Balancing Information* IE. If the Node B starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing, i.e. P_{init} shall be set to the power level indicated by the *Initial DL Transmission Power* IE.]

[FDD - If activation of power balancing by the RADIO LINK SETUP REQUEST message is supported by the Node B, the Node B shall include the *DL Power Balancing Activation Indicator* IE in the *RL Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

[1.28Mcps TDD - Uplink Synchronisation Parameters LCR]:

[1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message contains the *Uplink Synchronisation Parameters LCR* IE, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize* IE and *Uplink Synchronisation Frequency* IE when evaluating the timing of the UL synchronisation.]

[1.28Mcps TDD - Power Control GAP]:

[1.28Mcps TDD - If the *Power Control GAP* IE is included in the RADIO LINK SETUP REQUEST message, the DRNC shall use the value for the power control for HS-SCCH and HS-SICH according to the [22].]

General:

If the RADIO LINK SETUP REQUEST message includes the *RL Specific DCH Information* IE,the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the DCH or the set of co-ordinated DCHs.

The Node B shall start reception on the new RL(s) after the RLs are successfully established.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Synchronisation Indicator* IE, set to "Timing Maintained Synchronisation", the Node B shall use synchronisation procedure B according to subclause 4.3.2.4 in [10].]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Initial DL DPCH Timing Adjustment Allowed* IE, then the Node B may perform an initial DL DPCH Timing Adjustment (i.e. perform a timing advance or a timing delay with respect to the SFN timing) on a Radio Link. In this case, the Node B shall include, for the concerned Radio Link(s), the *Initial DL DPCH Timing Adjustment* IE in the *Radio Link Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *F-DPCH Slot Format* IE and if the Node B Communication Context is configured to use F-DPCH in the downlink, then the Node B shall use this information to configure the F-DPCH slot format of each RL according to [7].]

[FDD - Radio Link Set Handling]:

[FDD - The *First RLS Indicator* IE indicates if the concerned RL shall be considered part of the first RLS established towards this UE. The *First RLS Indicator* IE shall be used by the Node B together with the value of the *DL TPC Pattern 01 Count* IE which the Node B has received in the Cell Setup procedure, to determine the initial TPC pattern in the DL of the concerned RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.]

[FDD - For each RL not having a common generation of the TPC commands in the DL with another RL, the Node B shall assign the *RL Set ID* IE included in the RADIO LINK SETUP RESPONSE message a value that uniquely identifies the RL Set within the Node B Communication Context. In case of E-DCH, the generation of E-HICH related information for RLs in different RL Sets shall not be common.]

[FDD - For all RLs having a common generation of the TPC commands in the DL with another RL, the Node B shall assign the *RL Set ID* IE included in the RADIO LINK SETUP RESPONSE message the same value. This value shall uniquely identify the RL Set within the Node B Communication Context. In case of E-DCH, the generation of E-HICH information for all RLs in a RL Set shall be common.]

[FDD - The UL out-of-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set.]

[FDD - For each E-DCH RL which has or can have a common generation of E-RGCH information with another RL (current or future) when the Node B would contain the E-DCH serving RL, the Node B shall include the *E-DCH RL Set ID* IE in the RADIO LINK SETUP RESPONSE message. The value of the *E-DCH RL Set ID* IE shall allow the RNC to identify the E-DCH RLs that have or can have a common generation of E-RGCH information.]

Response Message:

If the RLs are successfully established, the Node B shall and respond with a RADIO LINK SETUP RESPONSE message.

After sending the RADIO LINK SETUP RESPONSE message the Node B shall continuously attempt to obtain UL synchronisation on the Uu interface.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK SETUP REQUEST message, the Node B shall:

- [FDD - start transmission on the DL DPDCH(s) of the new RL as specified in [16].]
- [TDD - start transmission on the new RL immediately as specified in [16].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK SETUP REQUEST message, the Node B shall:

- if the *Delayed Activation* IE indicates "Separate Indication":
 - not start any DL transmission for the concerned RL on the Uu interface;
- if the *Delayed Activation* IE indicates "CFN":
 - [FDD - start transmission on the DL DPDCH(s) of the new RL as specified in [16], however never before the CFN indicated in the *Activation CFN* IE.]
 - [TDD - start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in [16].]

8.2.17.3 Unsuccessful Operation

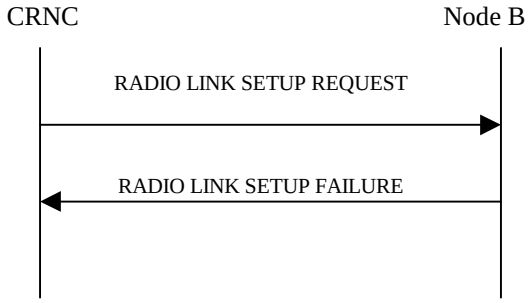


Figure 25: Radio Link Setup procedure, Unsuccessful Operation

If the establishment of at least one radio link is unsuccessful, the Node B shall respond with a RADIO LINK SETUP FAILURE message. The message contains the failure cause in the *Cause* IE.

[FDD - If some radio links were established successfully, the Node B shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message. In this case, the Node B shall include the *Communication Control Port Id* IE in the RADIO LINK SETUP FAILURE message.]

[FDD - If the RL identified by the *HS-PDSCH RL ID* IE is a radio link in the Node B and this RL is successfully established, then the Node B shall include the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP FAILURE message.]

Typical cause values are as follows:

Radio Network Layer Cause:

- Combining not supported
- Combining Resources not available
- Requested Tx Diversity Mode not supported
- Number of DL codes not supported
- Number of UL codes not supported
- UL SF not supported
- DL SF not supported
- Dedicated Transport Channel Type not supported
- Downlink Shared Channel Type not supported
- Uplink Shared Channel Type not supported
- CM not supported

- [FDD - DPC mode change not supported]
- Delayed Activation not supported
- F-DPCH not supported
- [FDD - Continuous Packet Connectivity DTX-DRX operation not available]
- [FDD - Continuous Packet Connectivity UE DTX Cycle not available]
- [FDD - MIMO not available].

Transport Layer Cause:

- Transport Resources Unavailable

Miscellaneous Cause:

- O&M Intervention
- Control processing overload
- HW failure

8.2.17.4 Abnormal Conditions

[FDD - If the RADIO LINK SETUP REQUEST message contains the *Active Pattern Sequence Information* IE, but the *Transmission Gap Pattern Sequence Information* IE is not present, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD - or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"], the Node B shall regard the Radio Link Setup procedure as failed and shall respond with a RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes a *DCH Information* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCH Information* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE or *RL Specific E-DCH Information* IE included in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must" [FDD - and the transport bearer for the DCH or E-DCH MAC-d flow is already established], the Node B shall regard the Radio Link Setup procedure as failed and respond with the RADIO LINK SETUP FAILURE message.

If ALCAP is not used, if the RADIO LINK SETUP REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "May", the Node B shall reject the Radio Link Setup procedure and respond with the RADIO LINK SETUP FAILURE message.

If ALCAP is not used, if the RADIO LINK SETUP REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must Not", the Node B shall reject the Radio Link Setup procedure and respond with the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport bearer intended to be established, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes an *HS-PDSCH RL-ID* IE not referring to one of the radio links to be established, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message contains the *HS-DSCH Information* IE and if the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, and the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE has the value "Indexed MAC-d PDU Size", the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message does not include the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, and the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE has the value "Flexible MAC-d PDU Size", the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Synchronisation Indicator* IE, set to "Timing Maintained Synchronisation", and if the *First RLS indicator* IE is set to "not first RLS", the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains the *HS-DSCH Information* IE and if the *Measurement Power Offset* IE is not present, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains the *F-DPCH Information* IE and the *DL DPCH Information* IE, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to use F-DPCH in the downlink, if at least one Transmission Gap Pattern Sequence is configured with an SF/2 downlink compressed mode method in the Compressed Mode Configuration and if the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Code Information* IE for any DL Channelisation Code, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used" and doesn"t include the *Secondary CPICH Information* IE, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message includes one of the *Not Used* IEs, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains the *E-DCH RL Indication* IE set to "E-DCH", but does not contain the *E-DCH FDD Information* IE, or if the message contains the *E-DCH FDD Information* IE, but does not contain the *E-DCH RL Indication* IE set to "E-DCH", then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message contains the *HS-PDSCH RL ID* IE and the *Serving E-DCH RL* IE but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not configured to be in the same cell then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

[FDD - If the RADIO LINK SETUP REQUEST message contains the *HS-PDSCH RL ID* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as 'HS-DSCH not configured' then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains the *E-DPCH Information* IE but does not contain the *UL DPDCH Indicator for E-DCH operation* IE, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains the *Serving Cell Change CFN* IE, but neither the *Serving E-DCH RL* IE nor *HS-DSCH Information* IE is included, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains the *Transport Bearer Not Requested Indicator* IE for a DCH, but does not contain the *Unidirectional DCH indicator* IE set to "Uplink DCH only" in the *DCH Specific Info* IE for the DCH, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[1.28Mcps TDD - For a multi-frequency cell, if the *UARFCN* IE is not included in the RADIO LINK SETUP REQUEST message, the Node B shall reject the procedure by sending the RADIO LINK SETUP FAILURE message.]

[1.28Mcps TDD - For the cell in which only one frequency is configured, if the UARFCN IE is included in the RADIO LINK SETUP REQUEST message, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the *UL DPCH Information* IE in the RADIO LINK SETUP REQUEST message contains the *UL DPCCH Slot Format* set to "4" but does not contain the *F-DPCH Information* IE, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the *UL DPCH Information* IE in the RADIO LINK SETUP REQUEST message contains the *UL DPCCH Slot Format* set to "0" or "2" and the *Continuous Packet Connectivity DTX-DRX Information* IE, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the *UL DPCH Information* IE in the RADIO LINK SETUP REQUEST message contains *Diversity Mode* IE set to "Closed loop mode 1"and *UL DPCCH Slot Format* not set to "2" or "3", then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains the *MIMO Activation Indicator* IE and/or *Sixtyfour QAM Usage Allowed Indicator* IE set to "Allowed", but does not contain the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size", then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

8.2.18 Physical Shared Channel Reconfiguration

8.2.18.1 General

This procedure is used to assign HS-DSCH related resources to the Node B.

[TDD - This procedure is also used for handling PDSCH Sets and PUSCH Sets in the Node B, i.e.

- Adding new PDSCH Sets and/or PUSCH Sets,
- Modifying these, and
- Deleting them.]

This procedure is also used to assign E-DCH related resources to the Node B.

8.2.18.2 Successful Operation

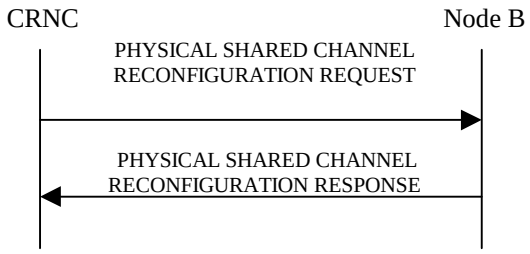


Figure 26: Physical Shared Channel Reconfiguration, Successful Operation

The procedure is initiated with a PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall activate the new configuration at the head boundary of the SFN according to the parameters given in the message.

If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes an *SFN* IE, the Node B shall activate the new configuration at the head boundary of that specified SFN. If no *SFN* IE is included Node B shall activate the new configuration immediately.

E-DCH and HS-DSCH Resources:

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH Total Power* IE, the Node B shall not exceed this maximum transmission power on all HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH codes in the cell. If a value has never been set or if the value of the *HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH Total Power* IE is equal to or greater

than the maximum transmission power of the cell the Node B may use all unused power for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH codes.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH And E-HICH Total Power* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall not exceed this maximum transmission power on all HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH codes in the cell portion indicated by *Cell Portion ID* IE. If a value has never been set or if the value of the *HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH And E-HICH Total Power* IE for the cell portion is equal to or greater than the maximum transmission power of the cell portion, the Node B may use all unused power for HS-PDSCH, HS-SCCH and E-AGCH, E-RGCH and E-HICH codes.]

HS-DSCH Resources:

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH And HS-SCCH Scrambling Code* IE, the Node B shall use this as the scrambling code for all HS-PDSCHs and HS-SCCHs. If a value has never been set, the Node B shall use the primary scrambling code for all HS-PDSCH and HS-SCCH codes.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH FDD Code Information* IE, the Node B shall:

- if the *Number Of HS-PDSCH Codes* IE is set to "0", delete any existing HS-PDSCH resources from the cell.
- if the *Number Of HS-PDSCH Codes* IE is set to any value other than "0" and HS-PDSCH resources are not currently configured in the cell, use this list as the range of codes for HS-PDSCH channels.
- if the *Number Of HS-PDSCH Codes* IE is set to any value other than "0" and HS-PDSCH resources are currently configured in the cell, replace the current range of codes with this new range of codes for HS-PDSCH channels.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-SCCH FDD Code Information* IE, the Node B shall:

- If the *HS-SCCH FDD Code Information* IE contains no codes, delete any existing HS-SCCH resources from the cell.
- If the *HS-SCCH FDD Code Information* IE contains one or more codes and HS-SCCH resources are not currently configured in the cell, use this list of codes as the list of codes for HS-SCCH channels.
- If the *HS-SCCH FDD Code Information* IE contains one or more codes and HS-SCCH resources are currently configured in the cell, replace the current list of codes with this new list of codes for HS-SCCH channels.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH and HS-SCCH Total Power* IE for a particular timeslot, the Node B shall not exceed this maximum transmission power on all HS-PDSCH and HS-SCCH codes in that timeslot. If a value has never been set for that timeslot or if the value of the *HS-PDSCH and HS-SCCH Total Power* IE for that timeslot is equal to or greater than the maximum transmission power of the cell the Node B may use all unused power in that timeslot for HS-PDSCH and HS-SCCH codes.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH TDD Information* IE, the Node B shall:

- If the *HS-PDSCH TDD Information* IE contains no [3.84 Mcps TDD - *DL Timeslot and Code Information* IE] [1.28 Mcps TDD - *DL Timeslot and Code Information LCR per UARFCN* IE] [7.68 Mcps TDD - *DL Timeslot and Code Information 7.68Mcps* IE], delete any existing HS-PDSCH resources from the cell.
- If the *HS-PDSCH TDD Information* IE contains [3.84 Mcps TDD - *DL Timeslot and Code Information* IE] [1.28 Mcps TDD - *DL Timeslot and Code Information LCR* IE] [7.68 Mcps TDD - *DL Timeslot and Code Information 7.68Mcps* IE] and HS-PDSCH resources are not currently configured in the cell, use this IE as the list of timeslots / codes for HS-PDSCH channels.
- If the *HS-PDSCH TDD Information* IE contains [3.84 Mcps TDD - *DL Timeslot and Code Information* IE] [1.28 Mcps TDD - *DL Timeslot and Code Information LCR* IE] [7.68 Mcps TDD - *DL Timeslot and Code Information 7.68Mcps* IE] and HS-PDSCH resources are currently configured in the cell, replace the current list of timeslots / codes with this new list of timeslots / codes for HS-PDSCH channels.]

- [1.28Mcps TDD - If the *HS-PDSCH TDD Information* IE contains any *DL Timeslot and Code Information LCR per UARFCN* IE and HS-PDSCH resources are not currently configured on the indicated frequency within the cell, use this IE as the list of frequency / timeslots / codes for HS-PDSCH channels on the frequency, the HSDPA resources on other frequency shall remain unchanged.]

- [1.28Mcps TDD - If the *HS-PDSCH TDD Information* IE contains any *DL Timeslot and Code Information LCR per UARFCN* IE and HS-PDSCH resources are currently configured on the indicated frequency within the cell, the current list of frequency / timeslots / codes shall be replaced with this new list of frequency / timeslots / codes for HS-PDSCH channels on this frequency, the HSDPA resources on other frequency/frequencies shall remain unchanged.]

- [1.28Mcps TDD - If the *DL Timeslot and Code Information LCR per UARFCN* IE contains no *DL Timeslot and Code Information LCR* IE but contains *UARFCN* IE, the existing HS-PDSCH resources on the frequency indicated by the *UARFCN* IE shall be deleted, the HSDPA resources on other frequency/frequencies shall remain unchanged.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *Add to HS-SCCH Resource Pool* IE, the Node B shall add this resource to the HS-SCCH resource pool to be used to assign HS-SCCH sets.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Modify HS-SCCH Resource Pool* IEs and includes any of [3.84Mcps TDD - *TDD Channelisation Code* IE, *Midamble Shift and Burst Type* IE, *Time Slot* IE], [1.28Mcps TDD - *First TDD Channelisation Code* IE, *Second TDD Channelisation Code* IE, *Midamble Shift LCR* IE, *Time Slot LCR* IE, *TDD Channelisation Code* IE], [7.68Mcps TDD - *TDD Channelisation Code 7.68Mcps* IE, *Midamble Shift and Burst Type 7.68Mcps* IE, *Time Slot* IE], for either HS-SCCH or HS-SICH channels, the Node B shall apply these as the new values, otherwise the old values specified for this set are still applicable.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Modify HS-SCCH Resource Pool* IEs and includes any *UARFCN* IEs related to HS-SCCH or HS-SICH channels, the Node B shall apply these configurations on the new frequency, otherwise the old frequency is still applicable.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Modify HS-SCCH Resource Pool* IEs and includes the*HS-SCCH Maximum Power* IE, the Node B shall apply this value for the specified HS-SCCH code otherwise the old value is still applicable.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Delete from HS-SCCH Resource Pool* IEs, the Node B shall delete these resources from the HS-SCCH resource pool.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall use this as the scrambling code for all HS-PDSCHs and HS-SCCHs for the cell portion indicated by Cell Portion ID. If a value has never been set, the Node B shall use the primary scrambling code for all HS-PDSCH and HS-SCCH codes for the cell portion indicated by Cell Portion ID.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH FDD Code Information* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall:

- if the *Number Of HS-PDSCH Codes* IE is set to "0", delete any existing HS-PDSCH resources from the cell portion indicated by *Cell Portion* ID IE.

- if the *Number Of HS-PDSCH Codes* IE is set to any value other than "0" and HS-PDSCH resources are not currently configured in the cell portion indicated by *Cell Portion ID* IE, use this list as the range of codes for HS-PDSCH channels.

- if the *Number Of HS-PDSCH Codes* IE is set to any value other than "0" and HS-PDSCH resources are currently configured in the cell portion indicated by *Cell Portion ID* IE, replace the current range of codes with this new range of codes for HS-PDSCH channels.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-SCCH FDD Code Information* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall:

- If the *HS-SCCH FDD Code Information* IE contains no codes, delete any existing HS-SCCH resources from the cell portion indicated by *Cell Portion ID* IE.

- If the *HS-SCCH FDD Code Information* IE contains one or more codes and HS-SCCH resources are not currently configured in the cell portion indicated by *Cell Portion ID* IE, use this list of codes as the list of codes for HS-SCCH channels.

- If the *HS-SCCH FDD Code Information* IE contains one or more codes and HS-SCCH resources are currently configured in the cell portion indicated by *Cell Portion ID* IE, replace the current list of codes with this new list of codes for HS-SCCH channels.]

[FDD - Enhanced Cell_FACH Operation]:

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *HS-DSCH Common System Information* IE, then the Node B shall:

If the *HS-DSCH Common Information* IE is included, then the Node B shall apply the parameters to the enhanced FACH in new configuration:

- If the *Discard Timer* IE is included in the *Priority Queue Information for Enhanced FACH* IE, then the Node B shall use this information to discard out-of-date MAC-ehs SDUs from the related HSDPA Priority Queue.

- If the *FACH Measurement Occasion Cycle Length Coefficient* IE is included in the *HS-DSCH Common Information* IE, then the Node B shall use this information for MAC-hs scheduling decisions.

- The Node B shall allocate HS-SCCH codes and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH Common System Information Response* IE in the PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE message.

- The Node B shall include the *HARQ Memory Partitioning* IE in the *HS-DSCH Common System Information Response* IE in the PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE message.

If the *Common MAC Flow Specific Information* IE is included, then the Node B shall apply the parameters to the enhanced FACH in new configuration:

- If the *Transport Layer Address* IE and *Binding ID* IE are included in the *Common MAC Flow Specific Information* IE, then the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the concerned Common MAC flow.

- If the *TNL QoS* IE is included and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related transport bearer.

- The Node B shall include in the PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of transport bearer for every Common MAC flow being established.

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the *HS-DSCH Common System Information Response* IE in the PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE message for every Common MAC flow being established, if the Node B allows the CRNC to start transmission of MAC-c PDUs before the Node B has allocated capacity on user plane as described in [24].

- If the *Common MAC Flow Priority Queue Information* IE is included in the *Common MAC Flow Specific Information* IE, the Node B shall use the information for configuring HSDPA Priority Queues.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Common MAC Flows To Delete* IEs, then the Node B shall use this information to delete the indicated Common MAC flows. When a Common MAC flow is deleted, all its associated Priority Queues shall also be removed. If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Common MAC Flows To Delete* IE requesting the deletion of all remaining Common MAC flows, then the Node B shall delete the HS-DSCH common system configuration and release the resources for enhanced FACH.]

[FDD - Enhanced Cell/URA_PCH Operation]:

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *HS-DSCH Paging System Information* IE, then the Node B shall:

- If the *Transport Layer Address* IE and *Binding ID* IE are included in the *Paging MAC Flow Specific Information* IE, then the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the concerned Paging MAC flow.

- If the *TNL QoS* IE is included and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related transport bearer.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Paging MAC Flows To Delete* IEs, then the Node B shall use this information to delete the indicated Paging MAC flows. When a Paging MAC flow is deleted, all its associated Priority Queues shall also be removed. If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Paging MAC Flows To Delete* IE requesting the deletion of all remaining Paging MAC flows, then the Node B shall delete the HS-DSCH paging system configuration and release the resources for enhanced PCH.]

[FDD - E-DCH Resources]:

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE, the Node B shall use this as the scrambling code for all E-AGCHs, E-RGCHs and E-HICHs. If a value has never been set, the Node B shall use the primary scrambling code for all E-AGCH, E-RGCH and E-HICH codes.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-AGCH FDD Code Information* IE, the Node B shall:]

- [FDD - If the *E-AGCH FDD Code Information* IE contains no codes, delete any existing E-AGCH resources from the cell.]

- [FDD - If the *E-AGCH FDD Code Information* IE contains one or more codes and E-AGCH resources are not currently configured in the cell, use this list of codes as the list of codes for E-AGCH channels.]

- [FDD - If the *E-AGCH FDD Code Information* IE contains one or more codes and E-AGCH resources are currently configured in the cell, replace the current list of codes with this new list of codes for E-AGCH channels.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-RGCH/E-HICH FDD Code Information* IE, the Node B shall:]

- [FDD - If the *E-RGCH/E-HICH FDD Code Information* IE contains no codes, delete any existing E-RGCH/E-HICH resources from the cell.]

- [FDD - If the *E-RGCH/E-HICH FDD Code Information* IE contains one or more codes and E-RGCH/E-HICH resources are not currently configured in the cell, use this list of codes as the list of codes for E-RGCH/E-HICH channels.]

- [FDD - If the *E-RGCH/E-HICH FDD Code Information* IE contains one or more codes and E-RGCH/E-HICH resources are currently configured in the cell, replace the current list of codes with this new list of codes for E-RGCH/E-HICH channels.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Maximum Target Received Total Wide Band Power* IE, the Node B shall use this value to control E-DCH scheduling.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Reference Received Total Wide Band Power* IE, the Node B may use this value to control E-DCH scheduling.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Target Non-serving E-DCH to Total E-DCH Power Ratio* IE, the Node B shall store this value and use this value for E-DCH scheduling by controlling the ratio of received E-DCH wide band power from non-serving UEs to the total received E-DCH power.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall use this as the scrambling code for all E-AGCHs, E-RGCHs and E-HICHs for the cell portion indicated by Cell Portion ID. If a value has never been set, the Node B shall use the primary scrambling code for all E-AGCH, E-RGCH and E-HICH codes for the cell portion indicated by Cell Portion ID.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-AGCH FDD Code Information* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall:]

- [FDD - If the *E-AGCH FDD Code Information* IE contains no codes, delete any existing E-AGCH resources from the cell portion indicated by *Cell Portion* ID IE.]

- [FDD - If the *E-AGCH FDD Code Information* IE contains one or more codes and E-AGCH resources are not currently configured in the cell portion indicated by *Cell Portion* ID IE, use this list of codes as the list of codes for E-AGCH channels.]

- [FDD - If the *E-AGCH FDD Code Information* IE contains one or more codes and E-AGCH resources are currently configured in the cell portion indicated by *Cell Portion* ID IE, replace the current list of codes with this new list of codes for E-AGCH channels.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-RGCH/E-HICH FDD Code Information* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall:]

- [FDD - If the *E-RGCH/E-HICH FDD Code Information* IE contains no codes, delete any existing E-RGCH/E-HICH resources from the cell portion indicated by *Cell Portion ID* IE.]

- [FDD - If the *E-RGCH/E-HICH FDD Code Information* IE contains one or more codes and E-RGCH/E-HICH resources are not currently configured in the cell portion indicated by *Cell Portion ID* IE, use this list of codes as the list of codes for E-RGCH/E-HICH channels.]

- [FDD - If the *E-RGCH/E-HICH FDD Code Information* IE contains one or more codes and E-RGCH/E-HICH resources are currently configured in the cell portion indicated by *Cell Portion ID* IE, replace the current list of codes with this new list of codes for E-RGCH/E-HICH channels.]

[TDD - E-DCH Resources]:

[3.84Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-PUCH Information* IE, the Node B shall:

- If the *E-PUCH Information* IE contains no *E-PUCH Timeslot Information* IE, then the Node B shall delete any existing E-DCH resources from the cell.

- If the *E-PUCH Information* IE contains *E-PUCH Timeslot Information* IE and E-DCH resources are not currently configured in the cell, use this IE as the list of timeslots for E-PUCH channels.

- If the *E-PUCH Information* IE contains *E-PUCH Timeslot Information* IE and E-DCH resources are currently configured in the cell, replace the current list of timeslots with this new list of timeslots for E-PUCH channels.]

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-PUCH Information 1.28Mcps* IE, the Node B shall:

- If the *E-PUCH Information 1.28Mcps* IE contains no *E-PUCH Timeslot Information 1.28Mcps per UARFCN* IE, then the Node B shall delete any existing E-DCH resources from the cell.

- For a single-frequency cell, if the *E-PUCH Information 1.28Mcps* IE contains *E-PUCH Timeslot Information 1.28Mcps per UARFCN* IE and E-DCH resources are not currently configured in the cell, use this IE as the list of timeslots / codes for E-PUCH channels.

- For a single-frequency cell, if the *E-PUCH Information 1.28Mcps* IE contains *E-PUCH Timeslot Information 1.28Mcps per UARFCN* IE and E-DCH resources are currently configured in the cell, replace the current list of timeslots / codes with this new list of timeslots / codes for E-PUCH channels.

- For a multi-frequency cell, if the *E-PUCH Information 1.28Mcps* IE contains *E-PUCH Timeslot Information 1.28Mcps per UARFCN* IE and E-DCH resources are not currently configured on the indicated frequency in the cell, use this IE as the list of frequency / timeslots / codes for E-PUCH channels, the E-DCH resources on other frequency shall remain unchanged.

- For a multi-frequency cell, if the *E-PUCH Information 1.28Mcps* IE contains *E-PUCH Timeslot Information 1.28Mcps per UARFCN* IE and E-DCH resources are currently configured on the indicated frequency in the cell, replace the current list of frequency / timeslots / codes with this new list of timeslots / codes for E-PUCH channels, the E-DCH resources on other frequency shall remain unchanged.

- For a multi-frequency cell, if the *E-PUCH Information 1.28Mcps* IE contains *E-PUCH Timeslot Information 1.28Mcps per UARFCN* IE but only *UARFCN* IE is included, then the Node B shall delete the existing E-DCH resources on the frequency indicated by the *UARFCN* IE from the cell, the E-DCH resources on other frequency shall remain unchanged.]

[7.68Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-PUCH Information 7.68Mcps* IE, the Node B shall:

- If the *E-PUCH Information 7.68Mcps* IE contains no *E-PUCH Timeslot Information* IE, then the Node B shall delete any existing E-DCH resources from the cell.

- If the *E-PUCH Information 7.68Mcps* IE contains *E-PUCH Timeslot Information* IE and E-DCH resources are not currently configured in the cell, use this IE as the list of timeslots for E-PUCH channels.

- If the *E-PUCH Information 7.68Mcps* IE contains *E-PUCH Timeslot Information* IE and E-DCH resources are currently configured in the cell, replace the current list of timeslots with this new list of timeslots for E-PUCH channels.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes [3.84Mcps TDD - *Add to E-AGCH Resource Pool* IE] [1.28Mcps TDD - *Add to E-AGCH Resource Pool 1.28Mcps* IE][7.68Mcps TDD - *Add to E-AGCH Resource Pool 7.68Mcps* IE], the Node B shall add this resource to the E-AGCH resource pool to be used to assign E-AGCH sets.]

[3.84Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Modify E-AGCH Resource Pool* IEs and includes any of *TDD Channelisation Code* IE, *Midamble Shift and Burst Type* IE, *Time Slot* IE, for E-AGCH channels, the Node B shall apply these as the new values, otherwise the old values specified for this set are still applicable.]

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Modify E-AGCH Resource Pool 1.28Mcps* IEs and includes any of *First TDD Channelisation Code* IE, *Second TDD Channelisation Code* IE, *Midamble Shift LCR* IE, *Time Slot LCR* IE, *UARFCN* IE for E-AGCH channels, the Node B shall apply these as the new values, otherwise the old values specified for this set are still applicable.]

[7.68Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Modify E-AGCH Resource Pool 7.68Mcps* IEs and includes any of *TDD Channelisation Code 7.68Mcps* IE, *Midamble Shift and Burst Type 7.68Mcps* IE, *Time Slot* IE, for E-AGCH channels, the Node B shall apply these as the new values, otherwise the old values specified for this set are still applicable.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any [3.84Mcps TDD - *Modify E-AGCH Resource Pool* IEs] [1.28Mcps - *Modify E-AGCH Resource Pool 1.28Mcps* IEs][7.68Mcps TDD - *Modify E-AGCH Resource Pool 7.68Mcps* IEs]and includes the *Maximum E-AGCH Power* IE, the Node B shall apply this value for the specified E-AGCH code otherwise the old value is still applicable.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Delete from E-AGCH Resource Pool* IEs, the Node B shall delete these resources from the E-AGCH resource pool.]

[3.84Mcps TDD and 7.68Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the [3.84Mcps TDD - *E-HICH Information* IE] [7.68Mcps TDD - *E-HICH Information 7.68Mcps* IE], the Node B shall configure the E-HICH according to the parameters.]

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Add to E-HICH Resource Pool 1.28Mcps* IE, the Node B shall add this resource to the E-HICH resource pool to be used to assign Scheduled or Non-scheduled E-HICH sets.]

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Modify E-HICH Resource Pool 1.28Mcps* IEs and includes any of *E-HICH Type* IE, *TDD Channelisation Code* IE, *Midamble Shift LCR* IE, *Time Slot LCR* IE, *UARFCN* IE for E-HICH channels, the Node B shall apply these as the new values, otherwise the old values specified for this set are still applicable.]

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Modify E-HICH Resource Pool 1.28Mcps* IEs and includes the *Maximum E-HICH Power* IE, the Node B shall apply this value for the specified E-HICH code otherwise the old value is still applicable.]

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Delete from E-HICH Resource Pool 1.28Mcps* IEs, the Node B shall delete these resources from the E-HICH resource pool.]

[3.84Mcps TDD and 7.68Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Maximum Generated Received Total Wide Band Power in Other Cells* IE, the Node B shall use this value to control E-DCH scheduling.]

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *Maximum Target Received Total Wide Band Power LCR* IE, the Node B shall use this value to control E-DCH scheduling.]

[TDD - PDSCH/PUSCH Addition]:

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any PDSCH sets or PUSCH sets to be added, the Node B shall add these new sets to its PDSCH/PUSCH configuration.]

[1.28Mcps TDD - If the *TSTD Indicator* IE is included in *PDSCH To Add Information LCR* IE and is set to "active", the Node B shall activate TSTD diversity for PDSCH transmissions using the specified PDSCH Set that are not beacon channels [19,21]. If the *TSTD Indicator* IE is set to "not active" or the *TSTD Indicator* IE is not included in *PDSCH To Add Information LCR* IE, the Node B shall not activate TSTD diversity for the PDSCH Set.]

[TDD - PDSCH/PUSCH Modification]:

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any PDSCH sets or PUSCH sets to be modified, and includes any of [3.84Mcps TDD - *DL/UL Code Information* IE, *Midamble Shift And Burst Type* IE, *Time Slot* IE], [1.28Mcps TDD - *DL/UL Code Information LCR* IE, *Midamble Shift LCR* IE, *Time Slot LCR* IE], [7.68Mcps TDD - *DL/UL Code Information 7.68Mcps* IE, *Midamble Shift And Burst Type 7.68Mcps* IE, *Time Slot* IE], *TDD Physical Channel Offset* IE, *Repetition Period* IE, *Repetition Length* IE, or *TFCI Presence* IE, the Node B shall apply these as the new values, otherwise the old values specified for this set are still applicable.]

[TDD - PDSCH/PUSCH Deletion]:

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any PDSCH sets or PUSCH sets to be deleted the Node B shall delete these sets from its PDSCH/PUSCH configuration.]

[1.28Mcps TDD - SYNC_UL Partition]:

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *SYNC_UL Partition Information* IE, the Node B shall store the *E-RUCCH SYNC_UL codes bitmap* IE used to differentiate the E-DCH random access from the RACH random access according to [21].]

Response Message:

HS-DSCH/HS-SCCH Resources:

In the successful case involving HS-PDSCH or HS-SCCH resources, the Node B shall store the value of *Configuration Generation ID* IE and it shall make these resources available to all the current and future HS-DSCH transport channels; and shall respond with PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE message.

[TDD - PDSCH/PUSCH Addition/Modification/Deletion]:

[TDD - In the successful case involving PDSCH/PUSCH addition, modification or deletion, the Node B shall add, modify and delete the PDSCH Sets and PUSCH Sets in the Common Transport Channel data base, as requested in the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message, and shall make these available to all the current and future DSCH and USCH transport channels. The Node B shall respond with the PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE message.]

8.2.18.3 Unsuccessful Operation

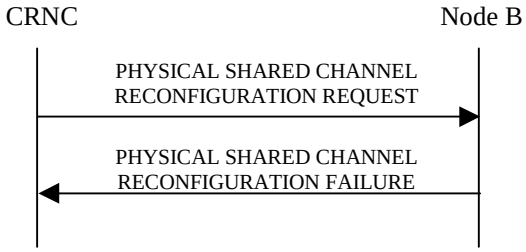


Figure 27: Physical Shared Channel Reconfiguration procedure: Unsuccessful Opreration

If the Node B is not able to support all parts of the configuration, it shall reject the configuration of all the channels in the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message. The *Cause* IE shall be set to an appropriate value [TDD - either a single general cause value or PDSCH and PUSCH set specific cause values for each set that caused a failure within the *Unsuccessful DL Shared Channel Set* IE for PDSCH sets or *Unsuccessful UL Shared Channel Set* IE for PUSCH sets]. The *Configuration Generation ID* shall not be changed in the Node B.

If the configuration was unsuccessful, the Node B shall respond with the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message:

[1.28Mcps TDD - For a multi-frequency cell, if the Node B is not able to support all parts of the configuration, in the case the Node B can only support configuration on one or some frequencies, the HSDPA or E-DCH related resources on this or these frequencies may be regarded as having successfully been established/reconfigured/removed, the Node B shall reject the HSDPA or E-DCH related configuration on other failed frequencies. The Node B may respond with the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message. The *HS-Cause* IE or *E-Cause* IE in the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message may be set to specific cause values for each frequency that caused a HSDPA or E-DCH related configuration failure. If the failure occurs on the HS-PDSCH or HS-SCCH resources, the Node B may store the value of the *Configuration Generation ID* IE and it shall make these resources available to all the current and future HS-DSCH transport channels. If the Node B is not able to support the HSDPA or E-DCH related configuration on any frequencies, the *Cause* IE may be set to an appropriate value, which is either a general cause value or specific cause values for each frequency that caused a failure.]

Typical cause values are as follows:

Radio Network Layer Cause:

- Cell not available
- Node B Resources unavailable

Transport Layer Cause:

- Transport Resources Unavailable

Miscellaneous Cause:

- O&M Intervention
- Control processing overload
- HW failure

8.2.18.4 Abnormal Conditions

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains *Add to HS-SCCH Resource Pool* IE, the *Modify HS-SCCH Resource Pool* IE, or the *Delete from HS-SCCH Resource Pool* IE and does not contain the *Configuration Generation ID* the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[3.84Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains the *Add to E-AGCH Resource Pool* IE, the *Modify E-AGCH Resource Pool* IE, or the *Delete from E-AGCH Resource Pool*

IE and does not contain the *Configuration Generation ID* the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains the *Add to E-AGCH Resource Pool 1.28Mcps* IE, the *Modify E-AGCH Resource Pool 1.28Mcps* IE, or the *Delete from E-AGCH Resource Pool* IE and does not contain the *Configuration Generation ID* the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains the *Add to E-HICH Resource Pool 1.28Mcps* IE, the *Modify E-HICH Resource Pool 1.28Mcps* IE, or the *Delete from E-HICH Resource Pool 1.28Mcps* IE and does not contain the *Configuration Generation ID* the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[7.68Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains the *Add to E-AGCH Resource Pool 7.68Mcps* IE, the *Modify E-AGCH Resource Pool 7.68Mcps* IE, or the *Delete from E-AGCH Resource Pool* IE and does not contain the *Configuration Generation ID* the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains the *Configuration Generation ID* IE and does not contain at least one of *Add to HS-SCCH Resource Pool* IE, the *Modify HS-SCCH Resource Pool* IE, [3.84Mcps TDD - the *Add to E-AGCH Resource Pool* IE, the *Modify E-AGCH Resource Pool* IE, the *Delete from E-AGCH Resource Pool* IE,] [1.28Mcps TDD - the *Add to E-AGCH Resource Pool 1.28Mcps* IE, the *Modify E-AGCH Resource Pool 1.28Mcps* IE, the *Delete from E-AGCH Resource Pool* IE, the *Add to E-HICH Resource Pool 1.28Mcps* IE, the *Modify E-HICH Resource Pool 1.28Mcps* IE, the *Delete from E-HICH Resource Pool 1.28Mcps* IE,][7.68Mcps TDD - the *Add to E-AGCH Resource Pool 7.68Mcps* IE, the *Modify E-AGCH Resource Pool 7.68Mcps* IE, the *Delete from E-AGCH Resource Pool* IE,] or the *Delete from HS-SCCH Resource Pool* IE the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[FDD - If neither E-AGCH nor E-HICH/E-RGCH resources are configured in the cell, and if one or more codes are included in the *E-AGCH FDD Code Information* IE and/or *E-RGCH/E-HICH FDD Code Information* IE but the *Maximum Target Received Total Wide Band Power* IE is not included in the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message, then the Node B shall send PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE, and the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE is not identical to the scrambling code of the phase reference, then the Node B shall reject the procedure using the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE in the *HSDPA And E-DCH Cell Portion Information* IE, and the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE is not identical to the scrambling code of the phase reference, then the Node B shall reject the procedure using the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-DSCH Common Information* IE and/or C*ommon MAC Flow Specific Information* IE and if the Priority Queues associated with the same *Common MAC Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the Node B shall reject the procedure using the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message does not contain the *UARFCN* IE in the *DL Timeslot and Code Information LCR per UARFCN* IE in the *HS-PDSCH TDD Information* IE, the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message does not contain the *UARFCN* IE in the *HS-SCCH Information LCR* IE in the *Add to HS-SCCH Resource Pool* IE, the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains the *UARFCN* IE in the *HS-SCCH Information LCR* IE in the *Modify HS-SCCH Resource Pool* IE, the HS-SCCH information on the new frequency shall be provided, otherwise the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message does not contain the *DL Timeslot and Code Information LCR* IE in the *DL Timeslot and Code Information LCR per UARFCN* IE in the *HS-PDSCH TDD Information* IE but contains *UARFCN* IE, and no HS-DSCH resources are configured on the frequency within the cell, the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message does not contain the *UARFCN* IE in the *E-PUCH Timeslot Information 1.28Mcps per UARFCN* IE in the *E-PUCH Information 1.28Mcps* IE, the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message does not contain the *UARFCN* IE in the *Add to E-AGCH Resource Pool 1.28Mcps* IE, the *Modify E-AGCH Resource Pool 1.28Mcps* IE, the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message does not contain the *UARFCN* IE in the *Add to E-HICH Resource Pool 1.28Mcps* IE, the *Modify E-HICH Resource Pool 1.28Mcps* IE, the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message does not contain the *E-PUCH Timeslot Information 1.28Mcps* IE in the *E-PUCH Timeslot Information 1.28Mcps per UARFCN* IE in the *E-PUCH Information 1.28Mcps* IE but contains *UARFCN* IE, and no E-DCH resources are configured on the frequency within the cell, the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

8.2.19 Reset

8.2.19.1 General

The purpose of the Reset procedure is to align the resources in the CRNC and the Node B in the event of an abnormal failure. The CRNC or the Node B may initiate the procedure.

8.2.19.2 Successful Operation

8.2.19.2.1 Reset Initiated by the CRNC

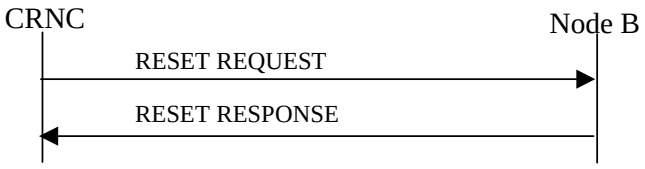


Figure 27A Reset procedure (CRNC to Node B), Successful Operation

The procedure is initiated with a RESET REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

If the *Reset Indicator* IE is set to "Communication Context", the Node B shall remove all the indicated Node B Communication Contexts (identified by a *Node B Communication Context ID* or a *CRNC Communication Context ID* IE) and all the radio resources allocated for these Node B Communication Contexts. The Node B shall also initiate release of the user plane transport bearers that were involved in these Contexts. After clearing all related resources, the Node B shall return the RESET RESPONSE message to the CRNC.

If the *Reset Indicator* IE is set to "Communication Control Port", the Node B shall remove all the Node B Communication Contexts controlled via the indicated Communication Control Port(s) and all the radio resources allocated for these Node B Communication Contexts. The Node B shall also initiate release of the user plane transport bearers that were involved in these Contexts. After clearing all related resources, the Node B shall return the RESET RESPONSE message to the CRNC.

If the *Reset Indicator* IE is set to "Node B", the Node B shall remove all the Node B Communication Contexts within the Node B and all the radio resources allocated for these Node B Communication Contexts. The Node B shall also initiate release of the user plane transport bearers that were involved in these Contexts. After clearing all related resources, the Node B shall return the RESET RESPONSE message to the CRNC.

8.2.19.2.2 Reset Initiated by the Node B

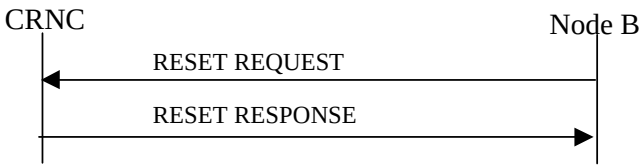


Figure 27B Reset procedure (Node B to CRNC), Successful Operation

The procedure is initiated with a RESET REQUEST message sent from the Node B to the CRNC using the Node B Control Port.

If the *Reset Indicator* IE is set to "Communication Context", for all indicated CRNC Communication Contexts (indicated by a *CRNC Communication Context ID* or a *Node B Communication Context ID* IE), the CRNC shall remove the information related to this Node B and all the radio resources allocated in the CRNC. The CRNC shall also initiate release of the user plane transport bearers towards the Node B involved in the indicated CRNC Communication Contexts. After clearing all related resources, the CRNC shall return the RESET RESPONSE message to the Node B.

If the *Reset Indicator* IE is set to "Communication Control Port", for all the CRNC Communication Contexts controlled via the indicated Communication Control Port(s), the CRNC shall remove the information related to this Node B and all the radio resources allocated in the CRNC. The CRNC shall also initiate release of the user plane transport bearers towards the Node B involved in the CRNC Communication Contexts controlled via the indicated Communication Control Port(s). After clearing all related resources, the CRNC shall return the RESET RESPONSE message to Node B.

If the *Reset Indicator* IE is set to the "Node B", for all the CRNC Communication Contexts related to this Node B, the CRNC shall remove the information related to this Node B and all the radio resources allocated in the CRNC. The CRNC shall also initiate release of the user plane transport bearers towards the Node B involved in the CRNC Communication Contexts related to this Node B. After clearing all related resources, the CRNC shall return the RESET RESPONSE message to Node B.

8.2.19.3 Unsuccessful Operation

-

8.2.19.4 Abnormal Conditions

If the RESET REQUEST message is received any ongoing procedure related to a CRNC Communication Context in the CRNC or Node B Communication Context in the Node B indicated (explicitly or implicitly) in the message shall be aborted.

8.2.20 Cell Synchronisation Initiation [TDD]

8.2.20.1 General

This procedure is used by a CRNC to request the transmission of [3.84Mcps TDD - Cell Synchronisation Bursts sent in the PRACH time slots] [1.28Mcps TDD - SYNC_DL code sent in the DwPTS] and/or to start measurements on [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL code] in a Node B.

8.2.20.2 Successful Operation

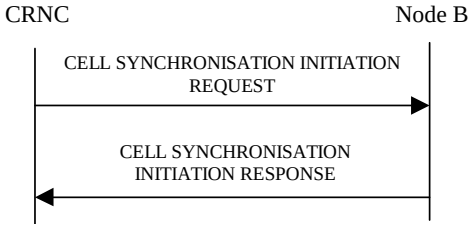


Figure 27C Cell Synchronisation Initiation procedure, Successful Operation

The procedure is initiated with a CELL SYNCHRONISATION INITIATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall initiate the requested transmission according to the parameters given in the request and start the measurement on [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL code] if requested.

[3.84Mcps TDD - Cell Sync Burst Transmission Initiation] [1.28Mcps TDD - SYNC_DL Code Transmission Initiation LCR]:

When the [3.84Mcps TDD - Cell Sync Burst Transmission Initiation Information] [1.28Mcps TDD - SYNC_DL Code Transmission Initiation Information LCR] is present, the Node B shall configure the transmission of the cell synchronisation burst according to the parameters given in the CELL SYNCHRONISATION INITIATION REQUEST message. The *SFN* IE indicates the frame number when the cell shall start transmitting cell synchronisation bursts.

[3.84Mcps TDD - When the Cell Sync Burst Transmission Initiation Information is present and the "Frequency Acquisition" is indicated within the *Synchronisation Report Type* IE, the Node B shall first perform only frequency locking on received cell synchronisation bursts. Transmission of the indicated cell synchronisation bursts shall be started only if the frequency locking is performed successfully and "Frequency Acquisition completed" is reported to the RNC.]

[3.84Mcps TDD - Cell Sync Burst Measurement characteristics] [1.28Mcps TDD - SYNC_DL Code Measurement characteristics LCR]:

When the [3.84Mcps TDD - Cell Sync Burst Measurement Initiation Information][1.28Mcps TDD - SYNC_DL Code Measurement Initiation Information LCR] is present, the Node B shall initiate measurements on the indicated cell synchronisation burst.

If the *SFN* IE is present, the Node B shall after measurement of the indicated [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] adjust the frame number of the indicated cell according to the SFN of the CELL SYNCHRONISATION INITIATION REQUEST message. This adjustment shall only apply to the late entrant cell at the late entrant phase.

Synchronisation Report characteristics:
The *Synchronisation Report Characteristics* IE indicates how the reporting of the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] measurement shall be performed. Whenever the Cell Synchronisation Initiation procedure is initiated, only [3.84Mcps TDD - the "Frequency Acquisition completed" or] "Frame related" report characteristics type shall apply.

[3.84Mcps TDD - If the *Synchronisation Report characteristics type* IE is set to "Frequency Acquisition completed", the Node B shall signal completion of frequency acquisition to the RNC when locking is completed.]

If the *Synchronisation Report characteristics type* IE is set to "Frame related", the Node B shall report the result of the cell synchronisation burst measurement after every measured frame.

[3.84Mcps TDD - If the *Cell Sync Burst Arrival Time* IE is included in the *Cell Sync Burst Information* IE of the *Synchronisation Report Characteristics* IE, it indicates to the Node B the reference time at which the reception of the cell synchronisation burst of a neighbouring cell is expected.]

[3.84Mcps TDD - If the *Cell Sync Burst Timing Threshold* IE is included in the *Cell Sync Burst Information* IE of the *Synchronisation Report Characteristics* IE, the Node B shall use this threshold as a trigger for the CELL SYNCHRONISATION REPORT message.]

[1.28Mcps TDD - If the *SYNC_DL Code ID Arrival Time* IE is included in the *SYNC_DL Code Information LCR* IE of the *Synchronisation Report Characteristics* IE, it indicates to the Node B the reference time at which the reception of the SYNC_DL Code of a neighbouring cell is expected.]

[1.28Mcps TDD - If the *SYNC_DL Code ID Timing Threshold* IE is included in the *SYNC_DL Code Information LCR* IE of the *Synchronisation Report Characteristics* IE, the Node B shall use this threshold as a trigger for the CELL SYNCHRONISATION REPORT message.]

Response message:
If the Node B was able to initiate the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] transmission and/or measurement requested by the CRNC it shall respond with the CELL SYNCHRONISATION INITIATION RESPONSE message sent over the Node B Control Port.

8.2.20.3 Unsuccessful Operation

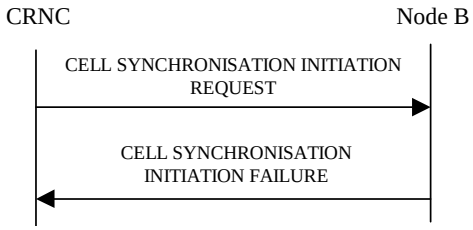


Figure 27D Cell Synchronisation Initiation procedure, Unsuccessful Operation

If the requested transmission or measurement on [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL Code] cannot be initiated, the Node B shall send a CELL SYNCHRONISATION INITIATION FAILURE message over the Node B control port. The message shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

- Cell Synchronisation not supported
- Power level not supported
- Measurement Temporarily not Available
- Frequency Acquisition not supported

Miscellaneous Cause:

- O&M Intervention
- HW failure

8.2.20.4 Abnormal Conditions

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8.2.21 Cell Synchronisation Reconfiguration [TDD]

8.2.21.1 General

This procedure is used by a CRNC to reconfigure the transmission of [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL Code] and/or to reconfigure measurements on [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL Code] in a Node B.

8.2.21.2 Successful Operation

8.2.21.2.1 General

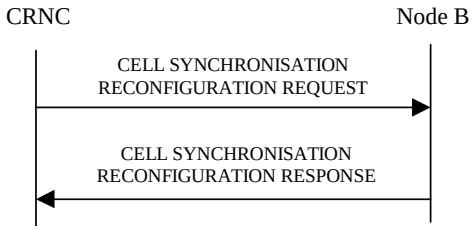


Figure 27E Cell Synchronisation Reconfiguration procedure, Successful Operation

The procedure is initiated with a CELL SYNCHRONISATION RECONFIGURATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall reconfigure the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] transmission and/or measurements according to the parameters given in the request.

8.2.21.2.2 [3.84Mcps TDD - Cell Sync Burst Schedule]

Within the CELL SYNCHRONISATION RECONFIGURATION REQUEST message first the schedule for the steady state phase is fixed. I.e. the number of cycles per SFN period is defined with the same schedule. For each cycle, the number of repetitions is defined according to following equations:

Cycle length: 4096 / value of *Number Of Cycles Per SFN Period* IE

Repetition period: Cycle length / value of *Number Of Repetitions Per Cycle Period* IE

Cell Sync Frame number is calculated by:

SFN = floor((k-1) * Cycle length + (i-1)* Repetition period)

k = {1, 2, 3, .. Number of cycle per SFN period}

i = {1, 2, 3, .. Cell Sync Frame number within cycle period}

8.2.21.2.3 [1.28Mcps TDD - SYNC_DL Code Schedule]

Within the CELL SYNCHRONISATION RECONFIGURATION REQUEST message first the schedule for the steady state phase is fixed. The "schedule" includes

- the list of frame numbers SFN within the SFN period where SYNC_DL Code transmission or reception takes place, i.e. the "synchronisation frames", and
- the associated actions (SYNC_DL Code transmission, reception, averaging, reporting etc) to be performed for synchronisation purpose by the Node B at each of these SFNs.

Within the synchronisation frames, only the first subframe shall be used for sending or receiving a SYNC_DL Code in the DwPTS while in the second subframe, normal operation continues.

The synchronisation schedule includes the option of averaging of measured correlation results within the Node B over a sequence of measurements, for increasing the reliability of the Time of Arrival measurement obtained from the correlation results. For this purpose, the concept of "subcycles" has been introduced: Each Synchronisation Cycle is devided into "subcycles" where in each subcycle, the same set of SYNC_DL transmissions and receptions is performed, and averaging takes place over all the subcycles within a Synchronisation Cycle. Since the list of actions (transmission, measurements etc) is the same in each subcycle, and the subcycles are repeated to make up a cycle, and the cycles make up an SFN period, the full list of actions is derived by the actions specified for a subcycle.

The full list of SFNs which make up the synchronisation schedule within the SFN period are calculated in Node B and CRNC autonomously based on the following parameters included in the CELL SYNCHRONISATION

RECONFIGURATION REQUEST message: "Number of cycles per SFN period", "Number of subcycles per cycle period", and "Number of repetitions per cycles period", along the following equations:

Cycle length: 4096 / value of *Number Of Cycles Per SFN Period* IE

Subcycle length: Cycle length / value of *Number Of Subcycles Per Cycle Period* IE

Repetition period: Subcycle length / value of *Number Of Repetitions Per Cycle Period* IE

SFN = floor((k-1) * Cycle length + (j-1)*Subcycle length + (i-1)* Repetition period)

k = {1, 2, 3, .. Number of cycle per SFN period}

j = {1, 2, 3, .. Number of subcycles per cycle}

i = {1, 2, 3, .. Number of repetitions per cycle period}

Note that if the *Number Of Subcycles Per Cycle* IE is equal to 1, then the subcycles are identical to the "Synchronisation Cycles".

If the *Number Of Subcycles Per Cycle* IE is included in the CELL SYNCHRONISATION RECONFIGURATION REQUEST [TDD] message, then the Node B shall apply this number for dividing the Synchronisation Cycles in Subcycles. If the IE is not present, then the Node B shall assume that there is one subcycle per synchronisation cycle only, which is identical to the synchronisation cycle.

Averaging is performed as follows:

- From each SYNC_DL code being received according to the schedule, the Node B shall calculate a "correlation function" by matching the received data with the respective expected code.
- Therefore the set of measurements within one subcycle provides a set of "correlation functions".
- The set of correlation functions of the first subcycle within a synchronisation cycle is stored in an averaging memory.
- The sets of correlation functions of the subsequent subcycles within a synchronisation cycle are combined with the available contents of the "averaging memory", to produce an average over all the sets of correlation functions within a synchronisation cycle.
- At the end of a synchronisation cycle, the Time-of-Arrival measurements for that synchronisation cycle are obtained by evaluating the final set of correlation functions.

These Time-of-Arrival measurements, together with associated SIR values obtained from the averaged correlation functions, are included in a Measurement Report to the CRNC, according to a measurement reporting plan.

In addition, the Time-of-Arrival measurements may optionally be used for autonomous self-adjustment of the timing of the respective cell.

8.2.21.2.4 [3.84Mcps TDD - Cell Sync Burst Transmission Reconfiguration] [1.28Mcps TDD - SYNC_DL Code Transmission Reconfiguration]

When the [3.84Mcps TDD - Cell Sync Burst Transmission Reconfiguration Information] [1.28Mcps TDD - SYNC_DL Code Transmission Reconfiguration Information LCR] is present, the Node B shall reconfigure the transmission of the [3.84Mcps TDD - cell synchronisation burst] [1.28Mcps TDD - SYNC_DL Code] according to the parameters given in the CELL SYNCHRONISATION RECONFIGURATION REQUEST message.

[3.84Mcps TDD - If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the *Cell Sync Burst Code* IE, the Node B shall reconfigure the synchronisation code in the cell according to the *Cell Sync Burst Code* IE value.]

[3.84Mcps TDD - If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the *Cell Sync Burst Code Shift* IE, the Node B shall reconfigure the synchronisation code shift in the cell according to the *Cell Sync Burst Code Shift* IE value.]

[3.84Mcps TDD - If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the *DL Transmission Power* IE, the Node B shall reconfigure the DL transmission power of the cell synchronisation burst in the cell according to the *DL Transmission Power* IE value.]

[1.28Mcps TDD - If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the *DwPCH Power* IE, the Node B shall store the DwPCH power according to the *DwPCH Power* IE value. For the duration of those subsequent transmissions of the DwPCH which are specifically for the purpose of Node B synchronisation the power of the DwPCH shall be set to the stored power. During subsequent transmissions of the DwPCH which are for normal operation the power of the DwPCH shall assume its normal level.]

[1.28Mcps TDD - If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the *Sync_DL Code ID* IE, the Node B shall reconfigure the SYNC_DL Code in the cell according to the *Sync_DL Code ID* IE value.]

8.2.21.2.5 [3.84Mcps TDD - Cell Sync Burst Measurement Reconfiguration] [1.28Mcps TDD - SYNC_DL Code Measurement Reconfiguration]

When the [3.84Mcps TDD - Cell Sync Burst Measurement Reconfiguration Information] [1.28Mcps TDD - Cell SYNC_DL Code Measurement Reconfiguration Information LCR] is present, the Node B shall reconfigure the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] measurements according the parameters given in the message.

If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the [3.84Mcps TDD -Cell Sync Burst Measurement Information] [1.28Mcps TDD - SYNC_DL Code Measurement Information LCR], the measurements shall apply on the individual [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL Codes] on the requested Sync Frame number.

[1.28Mcps TDD - When the *Propagation Delay Compensation* IE is present in the SYNC_DL Code Measurement Information LCR, the Node B shall, if supported, perform the following functions: (1) use the respective SYNC_DL measurement (after potential averaging) to perform the self-adjustment of the respective cell"s timing at the end of a Synchronisation Cycle; (2) include the *Accumulated Clock Update* IE in the CELL SYNCHRONISATION REPORT message, to report the total accumulated amount of timing adjustments since the last report to the RNC. This Accumulated Clock Update value shall also include the adjustments which may have been performed by explicit order from the CRNC in the CELL SYNCHRONISATION ADJUSTMENT REQUEST message. The times for self-adjustment at the end of a synchronisation cycle shall be independent from the measurement reporting characteristics; the Accumulated Adjustment values shall be included in the CELL SYNCHRONISATION REPORT messages without influencing the frequency of measurement reporting.]

If the *Synchronisation Report Type* IE is provided, the measurement reporting shall apply according the parameter given in the message.

Synchronisation Report characteristics:
The *Synchronisation Report Characteristics* IE indicates how the reporting of the cell synchronisation burst measurement shall be performed.

If the *Synchronisation Report Characteristics Type* IE is set to "Frame related", the Node B shall report the result of the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] measurement after every measured frame.

If the *Synchronisation Report Characteristics Type* IE is set to "SFN period related", the Node B shall report the result of the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] measurements after every SFN period.

If the *Synchronisation Report Characteristics Type* IE is set to "Cycle length related", the Node B shall report the result of the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] measurements after every cycle length within the SFN period.

If the *Synchronisation Report Characteristics Type* IE is set to "Threshold exceeding", the Node B shall report the result of the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] measurement when the [3.84Mcps TDD - Cell Synchronisation Burst timing] [1.28Mcps TDD - SYNC_DL Code timing] rises or falls more than the requested threshold value compared to the arrival time in synchronised state which is represented by the [3.84Mcps TDD - *Cell Sync Burst Arrival Time* IE] [1.28Mcps TDD - *SYNC_DL Code ID Arrival Time* IE].

[3.84Mcps TDD - If the *Cell Sync Burst Arrival Time* IE is included in the *Cell Sync Burst Information* IE of the *Synchronisation Report Characteristics* IE, it indicates to the Node B the reference time at which the reception of the cell synchronisation burst of a neighbouring cell is expected.]

[3.84Mcps TDD - If the *Cell Sync Burst Timing Threshold* IE is included in the *Cell Sync Burst Information* IE of the *Synchronisation Report Characteristics* IE, the Node B shall use this new threshold as a trigger for the CELL SYNCHRONISATION REPORT message.]

[1.28Mcps TDD - If the *SYNC_DL Code ID Arrival Time* IE is included in the *SYNC_DL Code Information LCR* IE of the *Synchronisation Report Characteristics* IE, it indicates to the Node B the reference time at which the reception of the SYNC_DL Code of a neighbouring cell is expected.]

[1.28Mcps TDD - If the *SYNC_DL Code ID Timing Threshold* IE is included in the *SYNC_DL Code Information LCR* IE of the *Synchronisation Report Characteristics* IE, the Node B shall use this threshold as a trigger for the CELL SYNCHRONISATION REPORT message.]

Response message:
If the Node B was able to reconfigure the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] transmission and/or measurement requested by the CRNC, it shall respond with the CELL SYNCHRONISATION RECONFIGURATION RESPONSE message sent over the Node B Control Port.

8.2.21.3 Unsuccessful Operation

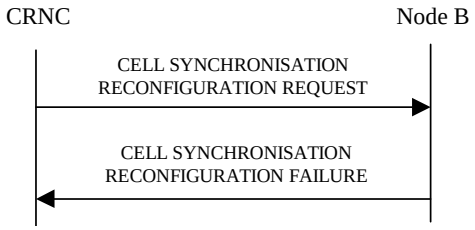


Figure 27F Cell Synchronisation Reconfiguration procedure, Unsuccessful Operation

If the Node B cannot reconfigure the requested transmission or measurement on [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code], the CELL SYNCHRONISATION RECONFIGURATION FAILURE message shall be sent to the CRNC. The message shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

- Cell Synchronisation not supported
- Power level not supported
- Measurement Temporarily not Available

Miscellaneous Cause:

- O&M Intervention
- HW failure

8.2.21.4 Abnormal Conditions

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8.2.22 Cell Synchronisation Reporting [TDD]

8.2.22.1 General

This procedure is used by a Node B to report the result of [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] measurements requested by the CRNC with the Cell Synchronisation Initiation or Cell Synchronisation Reconfiguration procedure.

8.2.22.2 Successful Operation

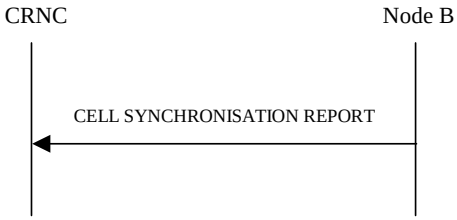


Figure 27G Cell Synchronisation Reporting procedure, Successful Operation

If the requested synchronisation measurement reporting criteria are met, the Node B shall initiate a Cell Synchronisation Reporting procedure. The CELL SYNCHRONISATION REPORT message shall use the Node B Control Port.

In the steady state phase when several [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL Codes] shall be measured per Sync Frame number, the sequence of the reported measured values shall be the same as defined in the Cell Synchronisation Reconfiguration procedure.

[1.28Mcps TDD - The Node B shall, if supported, include the *Accumulated Clock Update* IE in the CELL SYNCHRONISATION REPORT message whenever the CRNC has included at least one instance of the *Propagation Delay Compensation* IE in the CELL SYNCHRONISATION RECONFIGURATION REQUEST message. The *Accumulated Clock Update* IE shall include the accumulated timing adjustment which has been done as commanded by the CRNC, as well as by self-adjustment, since the last *Accumulated Clock Update* IE report.]

If the achieved measurement accuracy does not fulfil the given accuracy requirement defined in [23], the Cell Sync Burst not available shall be reported.

8.2.22.3 Abnormal Conditions

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8.2.23 Cell Synchronisation Termination [TDD]

8.2.23.1 General

This procedure is used by the CRNC to terminate a [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] transmission or measurement previously requested by the Cell Synchronisation Initiation procedure or Cell Synchronisation Reconfiguration procedure.

8.2.23.2 Successful Operation



Figure 27H Cell Synchronisation Termination procedure, Successful Operation

This procedure is initiated with a CELL SYNCHRONISATION TERMINATION REQUEST message, sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall terminate [3.84Mcps TDD - transmission of Cell Synchronisation Bursts or reporting of Cell Synchronisation Burst measurements] [1.28Mcps TDD - transmission of SYNC_DL Codes or reporting of SYNC_DL Code measurements] corresponding to the *CSB Transmission ID* IE or *CSB Measurement ID* IE.

8.2.23.3 Abnormal Conditions

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8.2.24 Cell Synchronisation Failure [TDD]

8.2.24.1 General

This procedure is used by the Node B to notify the CRNC that a [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] transmission or synchronisation measurement procedure can no longer be supported.

8.2.24.2 Successful Operation

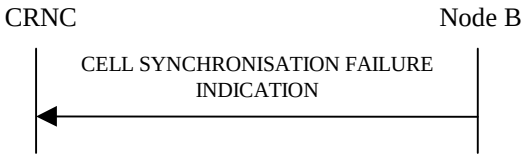


Figure 27I Cell Synchronisation Failure procedure, Successful Operation

This procedure is initiated with a CELL SYNCHRONISATION FAILURE INDICATION message, sent from the Node B to the CRNC using the Node B Control Port, to inform the CRNC that a previously requested transmission or measurement on [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL Codes] can no longer be supported.

If the transmission of a [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] has failed, then the Node B shall include the *CSB Transmission ID* IE in the CELL SYNCHRONISATION FAILURE INDICATION message to uniquely identify the concerned [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] Transmission.

If the measurement of a [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] has failed, then the Node B shall include the *CSB Measurement ID* IE in the CELL SYNCHRONISATION FAILURE INDICATION message to uniquely identify the concerned [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] Measurement.

8.2.24.3 Abnormal Conditions

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8.2.25 Cell Synchronisation Adjustment [TDD]

8.2.25.1 General

The purpose of Cell Synchronisation Adjustment procedure is to allow the CRNC to adjust the timing of the radio transmission of a cell within a Node B for time alignment.

8.2.25.2 Successful Operation

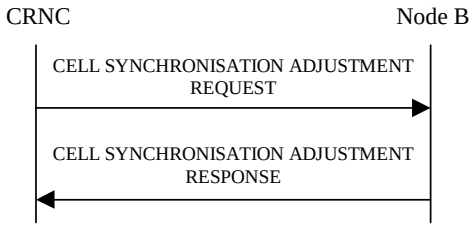


Figure 27J Cell Synchronisation Adjustment, Successful Operation

This procedure is initiated with a CELL SYNCHRONISATION ADJUSTMENT REQUEST message sent by the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B adjusts its timing according to the parameters given in the message.

If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *Frame Adjustment Value* IE the Node B shall apply the frame adjustment in the cell according to the *Frame Adjustment Value* IE value.

[3.84Mcps TDD - If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *Timing Adjustment Value* IE the Node B shall apply the timing adjustment in the cell according to the *Timing Adjustment Value* IE value.]

[1.28Mcps TDD - If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *Timing Adjustment Value LCR* IE the Node B shall apply the timing adjustment in the cell according to the *Timing Adjustment Value LCR* IE value.]

[3.84Mcps TDD - If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *DL Transmission Power* IE, the Node B shall apply the transmission power of the Cell Synchronisation Burst according to the *DL Transmission Power* IE value.]

[1.28Mcps TDD - If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *DwPCH Power* IE, the Node B shall store the DwPCH power according to the *DwPCH Power* IE value. For the duration of those subsequent transmissions of the DwPCH which are specifically for the purpose of Node B synchronisation the power of the DwPCH shall be set to the stored power. During subsequent transmissions of the DwPCH which are for normal operation the power of the DwPCH shall assume its normal level.]

If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *SFN* IE, the Node B shall apply the synchronisation adjustment starting with the SFN number indicated in the message.

When the cell synchronisation adjustment is successfully done by the Node B, the Node B shall respond with a CELL SYNCHRONISATION ADJUSTMENT RESPONSE message.

8.2.25.3 Unsuccessful Operation

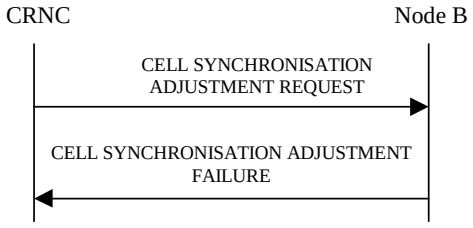


Figure 27K Cell Synchronisation Adjustment, Unsuccessful Operation

If the Node B cannot perform the indicated cell synchronisation adjustment due to hardware failure or other problem it shall send the CELL SYNCHRONISATION ADJUSTMENT FAILURE as a response.

Typical cause values are as follows:

Radio Network Layer Cause

- Cell Synchronisation Adjustment not supported

- Power level not supported

Miscellaneous Cause

- O&M Intervention
- HW failure

8.2.25.4 Abnormal Conditions

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8.2.26 Information Exchange Initiation

8.2.26.1 General

This procedure is used by a CRNC to request the initiation of information provisioning from a Node B.

8.2.26.2 Successful Operation

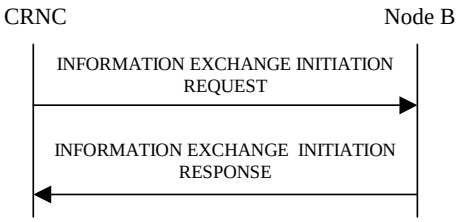


Figure 27L: Information Exchange Initiation procedure, Successful Operation

The procedure is initiated with the INFORMATION EXCHANGE INITIATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall provide the requested information according to the *Information Type Item* IE. Unless specified below, the meaning of the parameters are given in other specifications.

If the *Information Type* IE contains a *GANSS Generic Data* IE, at least one of the *GANSS Navigation Model And Time Recovery*, *GANSS Time Model GNSS-GNSS*, *GANSS UTC Model*, *GANSS Almanac*, *GANSS Real Time Integrity*, *GANSS Data Bit Assistance* IEs shall be present in the *GANSS Generic Data* IE.

- If the *GANSS Generic Data* IE does not contain the *GANSS ID* IE, the Node B shall assume that the corresponding GANSS is "Galileo".

Information Report Characteristics
The *Information Report Characteristics* IE indicates how the reporting of the information shall be performed.

If the *Information Report Characteristics* IE is set to "On Demand", the Node B shall report the requested information immediately.

If the *Information Report Characteristics* IE is set to "Periodic", the Node B shall immediately report the requested information and then shall periodically initiate the Information Reporting procedure for all the requested information, with the requested reporting frequency.

If the *Information Report Characteristics* IE is set to "On Modification", the Node B shall immediately report the requested information if available. If the requested information is not available at the moment of receiving the INFORMATION EXCHANGE INITIATION REQUEST message, but expected to become available after some acquisition time, the Node B shall initiate the Information Reporting procedure when the requested information becomes available. The Node B shall then initiate the Information Reporting procedure in accordance to the following conditions related to the *Information Type* IE:

1) If the *Information Type Item* IE is set to "DGPS Corrections", the Node B shall initiate the Information Reporting procedure when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE in the *Information Threshold* IE or a change has occurred in the IODE.

2) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Navigation Model & Time Recovery", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred regarding either the IODC or the list of visible satellites, identified by the *Sat ID* IEs.

3) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Ionospheric Model", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.

4) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS UTC Model", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred in the t_{ot} or WN_t parameter.

5) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Almanac", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when a change in the t_{oa} or WN_a parameter has occurred.

6) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Real-Time Integrity", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.

7) If the *Information Type Item* IE is set to "DGANSS Corrections", the Node B shall initiate the Information Reporting procedure when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE in the *Information Threshold* IE or a change has occurred in the IOD.

8) If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Navigation Model And Time Recovery* IE, the Node B shall initiate the Information Reporting procedure for this specific GANSS Information item when a change has occurred regarding either the IOD or the list of visible satellites, identified by the *Sat ID* IEs.

9) If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Ionospheric Model* IE, the Node B shall initiate the Information Reporting procedure for this specific GANSS Information item when any change has occurred.

10) If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Time Model* IE, the Node B shall initiate the Information Reporting procedure for this specific GANSS Information item when any change has occurred.

11) If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS UTC Model* IE, the Node B shall initiate the Information Reporting procedure for this specific GANSS Information item when a change has occurred in the t_{ot} or WN_t parameter.

12) If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Almanac* IE, the Node B shall initiate the Information Reporting procedure for this specific GANSS Information item when a change in the T_{oa}, IOD_a or Week Number parameter has occurred.

13) If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Real Time Integrity* IE, the Node B shall initiate the Information Reporting procedure for this specific GANSS Information item when any change has occurred

14) If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Data Bit Assistance* IE, the Node B shall initiate the Information Reporting procedure for this specific GANSS Information item when any change has occurred..

15) If any of the above *Information Type* IEs becomes temporarily unavailable, the Node B shall initiate the Information Reporting procedure for this specific Information Item by indicating "Information Not Available" in the *Requested Data Value Information* IE. If the Information becomes available again, the Node B shall initiate the Information Reporting procedure for this specific Information.

Response message

If the Node B is able to initiate the information provision requested by the CRNC, it shall respond with the

INFORMATION EXCHANGE INITIATION RESPONSE message sent over the Node B Control Port. The message shall include the same Information Exchange ID that was included in the INFORMATION EXCHANGE INITIATION REQUEST message. When the *Report Characteristics* IE is set to "On Modification" or "Periodic", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the requested data if the data are available. When the *Report Characteristics* IE is set to "On Demand", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the *Requested Data Value* IE.

If the *Requested DataValue* IE contains the *GANSS Common Data* IE, at least one of the *GANSS Ionospheric Model* or *GANSS RX Pos* IEs shall be present.

Any *GANSS Generic Data* IE associated with a given GANSS included in the *Requested DataValue* IE shall contain at least one of the *DGANSS Corrections, GANSS Navigation Model And Time Recovery, GANSS Time Model, GANSS UTC Model, GANSS Almanac, GANSS Real Time Integrity* or *GANSS Data Bit Assistance* IEs.

- If the *GANSS Generic Data* IE does not contain the *GANSS ID* IE, the corresponding GANSS is "Galileo".
- The *DGANSS Corrections* IE contains one or several *DGANSS Information* IE(s), each of them associated with a GANSS Signal. A *DGANSS Information* IE for "Galileo" that does not contain the *GANSS Signal ID* IE is by default associated with "Galileo L1 OS" (see [39]).
- The *GANSS Real Time Integrity* IE contains one or several *Satellite Information* IEs, each of them associated with a satellite and a GANSS Signal. A *Satellite Information* IE for "Galileo" that does not contain the *Bad GANSS Signal ID* IE is by default associated with all the signals of the corresponding satellite (see [39]).

8.2.26.3 Unsuccessful Operation

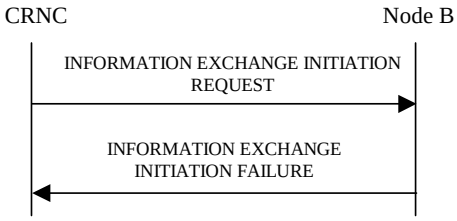


Figure 27M: Information Exchange Initiation procedure, Unsuccessful Operation

If the Information Type Item received in the *Information Type Item* IE indicates a type of information that cannot be provided, the Node B shall regard the Information Exchange Initiation procedure as failed.

If the requested information provision cannot be initiated, the Node B shall send the INFORMATION EXCHANGE INITIATION FAILURE message over the Node B control port. The message shall include the same Information Exchange ID that was used in the INFORMATION EXCHANGE INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause

- Information temporarily not available.
- Information Provision not supported for the object.

8.2.26.4 Abnormal Conditions

If the *Information Report Characteristics* IE is set to "On Modification", and the *Information Type Item* IE is set to "DGPS Corrections", or "DGANSS Corrections", but the *Information Threshold* IE is not received in the INFORMATION EXCHANGE INITIATION REQUEST message, the Node B shall regard the Information Exchange Initiation procedure as failed.

If the *Information Type Item* IE is not set to "DGPS Correction" or "DGANSS Corrections", the *Information Report Characteristics* IE is set to "On Modification" and the *Information Threshold* IE is included in the INFORMATION

EXCHANGE INITIATION REQUEST message, the Node B shall regard the Information Exchange Initiation procedure as failed.

8.2.27 Information Reporting

8.2.27.1 General

This procedure is used by a Node B to report the information requested by the CRNC with the Information Exchange Initiation procedure.

8.2.27.2 Successful Operation



Figure 27N: Information Reporting procedure, Successful Operation

If the requested information reporting criteria are met, the Node B shall initiate the Information Reporting procedure. The INFORMATION REPORT message shall use the Node B Control Port. Unless specified below, the meaning of the parameters are given in other specifications.

The *Information Exchange ID* IE shall be set to the Information Exchange ID provided by the CRNC when initiating the Information Exchange with the Information Exchange Initiation procedure.

The *Requested Data Value* IE shall include at least one IE containing the data to be reported.

8.2.27.3 Abnormal Conditions

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8.2.28 Information Exchange Termination

8.2.28.1 General

This procedure is used by the CRNC to terminate the provision of information previously requested by the Information Exchange Initiation procedure.

8.2.28.2 Successful Operation



Figure 27O: Information Exchange Termination procedure, Successful Operation

This procedure is initiated with an INFORMATION EXCHANGE TERMINATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall terminate the provision of information corresponding to the Information Exchange ID.

8.2.28.3 Abnormal Conditions

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8.2.29 Information Exchange Failure

8.2.29.1 General

This procedure is used by the Node B to notify the CRNC that information previously requested by the Information Exchange Initiation procedure can no longer be reported.

8.2.29.2 Successful Operation



Figure 27P: Information Exchange Failure procedure, Successful Operation

This procedure is initiated with the INFORMATION EXCHANGE FAILURE INDICATION message sent from the Node B to the CRNC using the Node B Control Port to inform the CRNC that information previously requested by the Information Exchange Initiation procedure can no longer be reported. The message shall include the same Information Exchange ID that was used in the INFORMATION EXCHANGE INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

8.2.30 MBMS Notification Update

8.2.30.1 General

This procedure is used to update the MBMS Notification Indicators to be sent over the MICH.

8.2.30.2 Successful Operation



Figure 27Q: MBMS Notification Update procedure, Successful Operation

The procedure is initiated with an MBMS NOTIFICATION UPDATE COMMAND message sent from the CRNC to the Node B using the Node B Control Port.

The Node B shall use the different NIs in the *NI Information* IE to generate, as specified in ref. [7], the notification indicators it shall transmit on the MICH starting at the next coming MICH CFN equal to the value in the *MICH CFN* IE and for a duration equal to the Modification Period. If the value of *MICH CFN* IE is the same as the one in a previously received MBMS NOTIFICATION UPDATE COMMAND message, and if the MICH CFN occurrence has not been reached yet, the Node B shall overwrite the value of the *NI Information* IE in the previously received MBMS NOTIFICATION UPDATE COMMAND message.

If the *Modification Period* IE is included in the MBMS NOTIFICATION UPDATE COMMAND message, the Node B shall use this as the new Modification Period starting at the next coming MICH CFN equal to the value in the *MICH CFN* IE. If the value of *MICH CFN* IE is the same as the one in a previously received MBMS NOTIFICATION UPDATE COMMAND message, and if the MICH CFN occurrence has not been reached yet, the Node B shall overwrite the value of the *Modification Period* IE in the previously received MBMS NOTIFICATION UPDATE COMMAND message.

If the *Modification Period* IE is not included in the MBMS NOTIFICATION UPDATE COMMAND message, the Node B shall use the lastest stored Modification Period.

8.2.30.3 Abnormal Conditions

If the *Modification Period* IE is not included in the MBMS NOTIFICATION UPDATE COMMAND message and no Modification Period is stored in the Node B, the Node B shall initiate the Error Indication procedure.

8.3 NBAP Dedicated Procedures

8.3.1 Radio Link Addition

8.3.1.1 General

This procedure is used for establishing the necessary resources in the Node B for one or more additional RLs towards a UE when there is already a Node B Communication Context for this UE in the Node B.

The Radio Link Addition procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.1.2 Successful Operation

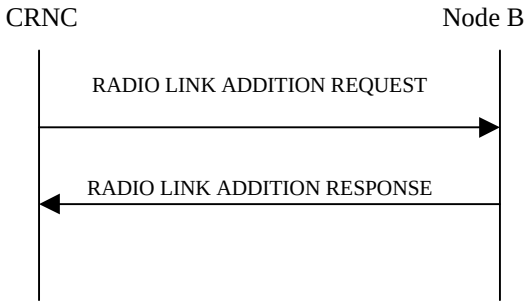


Figure: 28 Radio Link Addition procedure, Successful Operation

The procedure is initiated with a RADIO LINK ADDITION REQUEST message sent from the CRNC to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

Upon reception, the Node B shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The Node B shall prioritise resource allocation for the RL(s) to be established according to Annex A.

Physical Channels Handling:

[TDD - If the [3.84Mcps TDD - *UL DPCH Information* IE] [1.28Mcps TDD - *UL DPCH Information LCR* IE] [7.68Mcps TDD - *UL DPCH Information 7.68Mcps* IE] is present, the Node B shall configure the new UL DPCH(s) according to the parameters given in the message.]

[TDD - If the [3.84Mcps TDD - *DL DPCH Information* IE] [1.28Mcps TDD - *DL DPCH Information LCR* IE] [7.68Mcps TDD - *DL DPCH Information 7.68Mcps* IE] is present, the Node B shall configure the new DL DPCH(s) according to the parameters given in the message.]

[1.28Mcps TDD - If the *UL Timeslot Information LCR* IE includes the *PLCCH Information* IE, the Node B shall transmit TPC /SS bits on a PLCCH according to the parameters given in the message.]

[FDD - Compressed Mode]:

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Compressed Mode Deactivation Flag* IE with value "Deactivate", the Node B shall not activate any compressed mode pattern in the new RLs.

In all the other cases (Flag set to "Maintain Active" or not present), the ongoing compressed mode (if existing) shall be applied also to the added RLs.]

[FDD - If the Node B Communication Context is configured to use DPCH in the downlink and if the RADIO LINK ADDITION REQUEST message contains the *Transmission Gap Pattern Sequence Code Information* IE for any of the allocated DL Channelisation Codes, the Node B shall apply the alternate scrambling code as indicated for each DL Channelisation Code for which the *Transmission Gap Pattern Sequence Code Information* IE is set to "Code Change".]

[FDD - DL Code Information]:

[FDD - When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to ref. [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *p*th to "*PhCH number p*".]

[TDD - CCTrCH Handling]:

[TDD - If the *UL CCTrCH Information* IE is present, the Node B shall configure the new UL CCTrCH(s) according to the parameters given in the message.]

[1.28Mcps TDD - If the *UL CCTrCH Information* IE includes the *TDD TPC UL Step Size* IE, the Node B shall configure the uplink TPC step size according to the parameters given in the message, otherwise it shall use the step size configured in other radio link.]

[TDD - If the *DL CCTrCH Information* IE is present, the Node B shall configure the new DL CCTrCH(s) according to the parameters given in the message.]

[TDD - If the *DL CCTrCH Information* IE includes the *TDD TPC DL Step Size* IE, the Node B shall configure the downlink TPC step size according to the parameters given in the message, otherwise it shall use the step size configured in other radio link.]

[1.28 Mcps TDD - The Node B shall configure the HS-SCCH TPC step size to the same value as the *TDD TPC DL Step Size* IE of the lowest numbered DL CCTrCH whose *DL CCTrCH Information* IE includes the *TDD TPC DL Step Size* IE. If no *DL CCTrCH Information* IE includes the *TDD TPC DL Step Size* IE, it shall use the step size configured in other radio link.]

Radio Link Handling:

Diversity Combination Control:

The *Diversity Control Field* IE indicates for each RL whether the Node B shall combine the new RL with existing RL(s) or not.

- If the *Diversity Control Field* IE is set to "May", the Node B shall decide for any of the alternatives.
- If the *Diversity Control Field* IE is set to "Must", the Node B shall combine the RL with one of the other - RL.
- If the *Diversity Control Field* IE is set to "Must not", the Node B shall not combine the RL with any other existing RL.

[FDD - The signalled *Diversity Control Field* IE is only applicable for DCHs. In case of E-DCH, if any UARFCN(s) of the cells in the added RL(s) is not equal to at least one of the UARFCN(s) of the cells in the existing RL(s) in the Node B Communication Context, the Diversity Control Field, for those RL(s) shall be assumed to be set to "May", otherwise it shall be assumed to be set to "Must".]

When a new RL is to be combined, the Node B shall choose which RL(s) to combine it with.

In the case of not combining a RL with a RL established with a previous Radio Link Setup or Radio Link Addition Procedure or a RL previously listed in the RADIO LINK ADDITION RESPONSE message, the Node B shall indicate with the Diversity Indication in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message that no combining is done. In this case, the Node B shall:

- include in the *DCH Information Response* IE both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DCH of the RL in the RADIO LINK ADDITION

RESPONSE message. [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included].

- [FDD - include in the RADIO LINK ADDITION RESPONSE message the *Transport Bearer Not Setup Indicator* IE for every DCH for which establishment of a transport bearer has not taken place as a result of information in the *Transport Bearer Not Requested Indicator* IE in the RADIO LINK ADDITION REQUEST message.]

- [FDD - For E-DCH, include in the *E-DCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for the transport bearers to be established for each E-DCH MAC-d flow of this RL for which the *Transport Bearer Not Requested Indicator* IE was not included.]

In the case of combining with a RL established with a previous Radio Link Setup or Radio Link Addition Procedure or with a RL previously listed in this RADIO LINK ADDITION RESPONSE message, the Node B shall indicate with the Diversity Indication in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message that the RL is combined and if the ALCAP is not used [FDD - and the transport bearer for this DCH is already established], the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE included in the *RL Information* IE for a specific RL in the RADIO LINK ADDITION REQUEST message, shall not be used. In this case, the *RL ID* IE indicates (one of) the previously established RL(s) or a RL previously listed in this RADIO LINK ADDITION RESPONSE message with which the new RL is combined.

[FDD - In the case of combining with an E-DCH RL established with a previous Radio Link Setup or Radio Link Addition Procedure or with a RL previously listed in this RADIO LINK ADDITION RESPONSE message, one of the previously established RLs or a RL previously listed in this RADIO LINK ADDITION RESPONSE message including the *E-DCH FDD Information Response* IE shall be regarded as the RL with which the concerned E-DCH RL is combined. In case E-DCH RL is established for the first time, the Node B shall include *E-DCH FDD Information Response* IE instead of using the Diversity Indication of DCH RL in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message. It shall include in the *E-DCH FDD Information Response* IE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearers to be established for each E-DCH MAC-d flow of this E-DCH RL for which the *Transport Bearer Not Requested Indicator* IE was not included.]

In the case of a set of co-ordinated DCHs, the *Binding ID* IE and the *Transport Layer Address* IE shall be included for only one of the DCHs in a set of coordinated DCHs [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included].

[TDD - The Node B shall include in the RADIO LINK ADDITION RESPONSE message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DSCH and USCH.]

[FDD - Transmit Diversity]:

[FDD - If the *Transmit Diversity Indicator* IE is included in the RADIO LINK ADDITION REQUEST message, the Node B shall activate/deactivate the Transmit Diversity for each new Radio Link in accordance with the *Transmit Diversity Indicator* IE and the already known diversity mode.]

DL Power Control:

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall apply the given power to the transmission on each DL DPCH or on the F-DPCH of the RL when starting transmission until either UL synchronisation on the Uu interface is achieved for the RLS or Power Balancing is activated. If no *Initial DL Transmission Power* IE is included, the Node B shall use any transmission power level currently used on already existing RLs for this Node B Communication Context. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) with DPC MODE currently configured for the relevant Node B Communication Context and the downlink power control procedure (see subclause 8.3.7).]

[3.84 Mcps TDD and 7.68Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Initial DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the initial CCTrCH DL power, otherwise the initial

CCTrCH DL power is the *Initial DL Transmission Power* IE included in the *RL Information* IE. The Node B shall apply the given power to the transmission on each DL DPCH and on each Time Slot of the CCTrCH when starting transmission until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included (even if *CCTrCH Initial DL Transmission Power* IEs are included), the Node B shall use any transmission power level currently used on already existing CCTrCHs for this Node B Communication Context. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 4.2.3.4).]

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial DL power for each timeslot within a DCH type CCTrCH by the following rule: If the *Initial DL Transmission Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power for the initial DL power and ignore the *DL Time Slot ISCP info LCR*, otherwise the initial DL power is the *Initial DL Transmission Power* IE included in the *RL Information* IE and if *DL Time Slot ISCP info LCR* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specifiedin [21], it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged. The Node B shall apply the given power to the transmission on each DL DPCH and on each Time Slot of the CCTrCH when starting transmission until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included, the Node B shall use any transmission power level currently used on already existing RL/timeslots for this Node B Communication Context. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4).]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL Power* IE, the Node B shall store this value and not transmit with a higher power on any DL DPCH or on the F-DPCH of the RL. If no *Maximum DL Power* IE is included, any Maximum DL power stored for already existing RLs for this Node B Communication Contextshall be applied. If the Node B Communication Context is configured to use DPCH in the downlink, during compressed mode, the δP_{curr}, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL Power* IE, the Node B shall store this value and never transmit with a lower power on any DL DPCH or on the F-DPCH of the RL. If no *Minimum DL Power* IE is included, any Minimum DL power stored for already existing RLs for this Node B Communication Context shall be applied.]

[3.84 Mcps TDD and 7.68Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL Power* IE, the Node B shall determine the maximum CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the maximum CCTrCH DL power, otherwise the maximum CCTrCH DL power is the *Maximum DL Power* IE included in the *RL Information* IE. If no *Maximum DL Power* IE is included (even if *CCTrCH Maximum DL Transmission Power* IEs are included), any maximum DL power stored for already existing DCH type CCTrCHs for this Node B Communication Context shall be applied.]

[3.84 Mcps TDD and 7.68Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL Power* IE, the Node B shall determine the minimum CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the minimum CCTrCH DL power, otherwise the minimum CCTrCH DL power is the *Minimum DL Power* IE included in the *RL Information* IE. If no *Minimum DL Power* IE is included (even if *CCTrCH Minimum DL Transmission Power* IEs are included), any minimum DL power stored for already existing DCH type CCTrCHs for this Node B Communication Context shall be applied.]

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL Power* IE, the Node B shall determine the maximum DL power for each timeslot within a DCH type CCTrCH by the following rule: If the *Maximum DL Power* IE is included in the *DL Timeslot Information LCR* IE for that timeslot, then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum DL Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a higher power on any applicable DL DPCH. If no *Maximum DL Power* IE is included, any maximum DL power stored for already existing RL/timeslots for this Node B Communication Context shall be applied.]

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL Power* IE, the Node B shall determine the minimum DL power for each timeslot within a DCH type CCTrCH by the following rule: If the *Minimum DL Power* IE is included in the *DL Timeslot Information LCR* IE for that timeslot, then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum DL Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a lower power on any applicable DL DPCH. If no *Minimum DL Power* IE is included, any minimum DL power stored for already existing RL/timeslots for this Node B Communication Context shall be applied.]

[3.84Mcps TDD and 7.68Mcps TDD - The initial power, maximum power, and minimum power for DSCH type CCTrCH shall be determined as follows:

- If the DSCH type CCTrCH is paired with an uplink CCTrCH(s) for inner loop power control, the minimum, maximum and initial power for each PDSCH is determined in the same way as described above for DCH type CCTrCHs.

- If the DSCH type CCTrCH is not paired with an uplink CCTrCH(s) for inner loop power control, the PDSCH transmission power is DSCH Data Frame Protocol signalled [24], with the maximum value determined in the same way as described above for DCH type CCTrCHs. The minimum and initial powers, however, are subject to control by the CRNC via the frame protocol].

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial DL power for each timeslot within a DSCH type CCTrCH by the following rule: If both the *CCTrCH Initial DL Transmission Power* IE, included in the *DL CCTrCH Information* IE, and the *DL Time Slot ISCP Info LCR* IE, included in the *RL Information* IE, are included then the Node B shall use that power for the PDSCH and ignore the *Initial DL Transmission Power* IE included in the *RL Information* IE, otherwise the initial DL Power is the *Initial DL Transmission Power* IE included in the *RL Information* IE and if *DL Time Slot ISCP info LCR* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged. The Node B shall apply the given power to the transmission on each DL PDSCH and on each Time Slot of the CCTrCH when starting transmission until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included, the Node B shall use any transmission power level currently used on already existing RL/timeslots for this Node B Communication Context. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4).]

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL Power* IE, the Node B shall determine the maximum DL power for each timeslot within a DSCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE, included in the *DL CCTrCH Information* IE, is included then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum DL Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a higher power on any applicable PDSCH. If no *Maximum DL Power* IE is included, any maximum DL power stored for already existing RL/timeslots for this Node B Communication Context shall be applied.]

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL Power* IE, the Node B shall determine the minimum DL power for each timeslot within a DSCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE, included in the *DL CCTrCH Information* IE, is included then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum DL Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a lower power on any applicable PDSCH. If no *Minimum DL Power* IE is included, any minimum DL power stored for already existing RL/timeslots for this Node B Communication Context shall be applied.]

[3.84Mcps TDD and 7.68Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *DL Time Slot ISCP Info* IE, the Node B shall use the indicated value when deciding the DL TX Power for each timeslot as specified in ref. [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged.]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the Node B Communication Context set to "Individual" in the existing RL(s) and the RADIO LINK ADDITION REQUEST message includes the *DL Reference Power* IE, the Node B shall activate the power balancing and use the *DL Reference Power* IE for the power balancing procedure in the new RL(s), if activation of power balancing by the RADIO LINK ADDITION REQUEST message is supported, according to subclause 8.3.7. In this case, the Node B shall include the *DL Power Balancing Activation Indicator* IE in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message. If the Node B starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing, i.e. P_{init} shall be set to the power level indicated by the *Initial DL Transmission Power* IE (if received) or the decided DL TX power level on each DL channelisation code of a RL based on power level of existing RLs.]

[1.28Mcps TDD - Uplink Synchronisation Parameters LCR]:

[1.28Mcps TDD - If the RADIO LINK ADDITION REQUEST message contains the *Uplink Synchronisation Parameters LCR* IE, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize* IE and *Uplink Synchronisation Frequency* IE when evaluating the timing of the UL synchronisation.]

General:

If the RADIO LINK ADDITION REQUEST message includes the *RL Specific DCH Information* IE, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the DCH or the set of co-ordinated DCHs [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included].

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer shall not be Established" for a DCH, then the Node B shall not establish a transport bearer for the concerned DCH and shall include the *Transport Bearer Not Setup Indicator* IE for every corresponding DCH in the RADIO LINK ADDITION RESPONSE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for a DCH and:]

- [FDD - if the Node B establishes a transport bearer for the concerned DCH, the Node B shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the DCH being established.]

- [FDD - if the Node B does not establish a transport bearer for the concerned DCH, the Node B shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH in the RADIO LINK ADDITION RESPONSE message.]

If the RADIO LINK ADDITION REQUEST message includes the *RL Specific E-DCH Information* IE,the Node B may use the transport layer addresses and the binding identifiers received from the CRNC when establishing transport bearers for the MAC-d flows of the E-DCHs.

The Node B shall start reception on the new RL(s) after the RLs are successfully established.

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Initial DL DPCH Timing Adjustment Allowed* IE, then the Node B may perform an initial DL DPCH Timing Adjustment (i.e. perform a timing advance or a timing delay with respect to the SFN timing) on a Radio Link. In this case, the Node B shall include, for the concerned Radio Link(s), the *Initial DL DPCH Timing Adjustment* IE in the *Radio Link Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Synchronisation Indicator* IE, set to "Timing Maintained Synchronisation", the Node B shall use synchronisation procedure B according to subclause 4.3.2.4 in [10]. The Node B shall select the TPC pattern as if "first RLS indicator" is set to "first RLS" according to subclause 5.1.2.2.1.2 in [10].]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *F-DPCH Slot Format* IE and if the Node B Communication Context is configured to use F-DPCH in the downlink, then the Node B shall use this information to configure the F-DPCH slot format of each RL according to [7].]

[FDD - Radio Link Set Handling]:

[FDD - For each RL not having a common generation of the TPC commands in the DL with another RL, the Node B shall assign the *RL Set ID* IE included in the RADIO LINK ADDITION RESPONSE message a value that uniquely identifies the RL Set within the Node B Communication Context. In case of E-DCH, the generation of E-HICH related information for RLs in different RL Sets shall not be common.]

[FDD - For all RLs having a common generation of the TPC commands in the DL with another new or existing RL, the Node B shall assign the *RL Set ID* IE included in the RADIO LINK ADDITION RESPONSE message the same value. This value shall uniquely identify the RL Set within the Node B Communication Context. In case of E-DCH, the generation of E-HICH information for all RLs in a RL Set shall be common.]

[FDD - After addition of the new RL(s), the UL out-of-sync algorithm defined in [10] shall, for each of the previously existing and newly established RL Set(s), use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set.]

[FDD - For each E-DCH RL which has or can have a common generation of E-RGCH information with another RL (current or future) when the Node B would contain the E-DCH serving RL, the Node B shall include the *E-DCH RL Set ID* IE in the RADIO LINK ADDITION RESPONSE message. The value of the *E-DCH RL Set ID* IE shall allow the RNC to identify the E-DCH RLs that have or can have a common generation of E-RGCH information.]

[FDD - Serving HS-DSCH Radio Link Change]:

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH Serving Cell Change Information* IE, then *HS-PDSCH RL ID* IE indicates the new Serving HS-DSCH Radio Link:]

- [FDD - In the new configuration the Node B shall allocate the HS-PDSCH resources for the new Serving HS-PDSCH Radio Link.]

- [FDD - The Node B may include the *HARQ Memory Partitioning* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message. The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]

- [FDD - The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.]

 [FDD - HS-DSCH Setup at Serving HS-DSCH Radio Link Change:]

 [FDD - If the *HS-DSCH Information* IE is present in the *HS-DSCH Serving Cell Change Information* IE, then:]

 - [FDD - The Node B shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.]

 - [FDD - The Node B shall include the *HARQ Memory Partitioning* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message. The *HARQ Memory Partitioning* IE shall either contain the *HARQ Memory Partitioning Information Extension For MIMO* IE or the *Number of Processes* IE set to a value higher than "8", if the *MIMO Activation Indicator* IE is included in the *HS-DSCH Information* IE.]

 - [FDD - If the RADIO LINK ADDITION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.]

 - [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then

the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.]

- [FDD - The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message for every HS-DSCH MAC-d flow being established, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24]. If RADIO LINK ADDITION REQUEST message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to "Flexible MAC-d PDU Size", then Node B shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer received in RADIO LINK ADDITION REQUEST in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the Node B may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Measurement Power Offset* IE in the *HS-DSCH Information* IE, then the Node B shall use the measurement power offset as described in ref [10], subclause 6A.2.]

- [FDD - The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated HARQ Preamble Mode as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the Node B shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the Node B shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated format in user plane frame structure for HS-DSCH channels [24] and MAC-hs [32].]

- [FDD - If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.]

- [FDD - If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the Node B shall activate the MIMO mode for the HS-DSCH Radio Link and the Node B shall decide the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO N/M Ratio* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the Node B may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the Node B shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE with value set to "not allowed", then the Node B shall not use 64 QAM for the HS-DSCH Radio Link.]

- [FDD - If the *Serving Cell Change CFN* IE is included into the RADIO LINK ADDITION REQUEST message, then the Node B shall activate the resources that are allocated for the new serving HS-DSCH Radio Link at the next coming CFN with a value equal to the value requested by the RNC. In the new configuration the Node B shall, if applicable, de-allocate the HS-PDSCH resources of the old Serving HS-PDSCH Radio Link. The Node B shall deactivate those resources at the next coming CFN with a value equal to the value requested by the RNC.]

- [FDD - If the *Serving Cell Change CFN* IE is not included then the Node B shall activate immediately the resources that are allocated for the new serving HS-PDSCH Radio Link, and shall keep active the resources that are allocated for the previous serving HS-PDSCH Radio Link.]

- [FDD - If the *Serving Cell Change* CFN IE is not included into the RADIO LINK ADDITION REQUEST message, then the Node B shall include the *Transport Layer Address* IE and the *Binding ID* IE for HS-DSCH MAC-d flow for the serving HS-PDSCH RL into the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the *HS-DSCH Information* IE is present in the *HS-DSCH Serving Cell Change Information* IE, then the Node B shall include the *Transport Layer Address* IE and the *Binding ID* IE for HS-DSCH MAC-d flow for the serving HS-PDSCH RL into the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the Node B needs a bearer re-arrangement, then the Node B may include the *Transport Layer Address* IE and the *Binding ID* IE for HS-DSCH MAC-d flow for the serving HS-PDSCH RL into the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If a reset of the MAC-hs is not required the Node B shall include the *MAC-hs Reset Indicator* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the requested Serving HS-DSCH Radio Link Change was successful or unsucessful, the Node B shall indicate this in the *HS-DSCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the HS-DSCH Serving Cell Change Information IE includes the Continuous Packet Connectivity HS-SCCH less Information IE, then:]

 - [FDD - The Node B shall configure the new Serving HS-DSCH Radio Link for Continuous Packet Connectivity HS-SCCH less operation according to [10].]

 - [FDD - The Node B shall allocate the HS-PDSCH codes needed for HS-SCCH less operation and include the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the *HS-DSCH Serving Cell Change Information Response* IE.]

- [FDD - If at least one of *HS-PDSCH Second Code Support* IE is set to "True", then the Node B shall include *HS-PDSCH Second Code Index* IE in the RADIO LINK ADDITION RESPONSE message.]

[FDD - E-DCH]:

[FDD - If the RADIO LINK ADDITION REQUEST message contains the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE, then for every such RL:]

- [FDD - The Node B shall setup the E-DCH resources as configured in the Node B Communication Context.]

- [FDD - The Node B may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the Node B may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in *RL Information Response* IE for every RL indicated by the *E-DCH RL Indication* IE, set to 'E-DCH' in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

[FDD - Serving E-DCH Radio Link Change:]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Serving E-DCH RL* IE, then *Serving E-DCH RL* IE indicates the new Serving E-DCH Radio Link:]

- [FDD - If the new Serving E-DCH RL is in this Node B:]
 - [FDD - The Node B may allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
 - [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message for the initial grant for the new serving E-DCH RL.]
 - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
 - [FDD - The Node B may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK ADDITION RESPONSE message for the new serving E-DCH RL.]
- [FDD - The Node B may include the *E-RGCH/E-HICH Channelisation Code* IE and/or the *E-HICH Signature Sequence* IE and/or the *E-RGCH Signature Sequence* IE or may alternatively include the *E-RGCH Release Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message for any of the other E-DCH Radio Links in the Node B Communication Context that have not been included in the *E-DCH FDD DL Control Channel Information* IE in *RL Information Response* IE.]
- [FDD - If the *Serving Cell Change CFN* IE is included in the RADIO LINK ADDITION REQUEST message, then the Node B shall activate the resources that are allocated for the new serving E-DCH Radio Link at the next coming CFN with a value equal to the value requested by the RNC. In the new configuration the Node B shall, if applicable, de-allocate the E-AGCH resources of the old Serving E-DCH Radio Link. The Node B shall deactivate those resources at the next coming CFN with a value equal to the value requested by the SRNC.]
- [FDD - If the *Serving Cell Change CFN* IE is not included then the Node B shall activate immediately the resources that are allocated for the new serving E-DCH Radio Link.]
- [FDD - If the addition of the requested Serving E-DCH Radio Link was successful but the Serving E-DCH Radio Link change was unsuccessful, the Node B shall indicate this in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

[FDD - E-DPCH Handling]:

[FDD - If the RADIO LINK ADDITION REQUEST message includes an *E-DPCH Information* IE, the Node B shall use the new parameters for the related resource allocation operations.]

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DPDCH Power Interpolation* IE, the Node B shall use the value to determine the applicable E-DPDCH power formula defined in [10]. If the *E-DPDCH Power Interpolation* IE is not present, the Node B shall use the E-DPDCH power extrapolation formula defined in [10].]

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-TFCI Boost Information* IE, the Node B shall use the information according to [10]. If the *E-TFCI Boost Information* IE is not present, the Node B shall use the E-TFCI BetaEC Boost value "127" in the algorithm defined in [10].]

[FDD - E-DCH Setup:]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK ADDITION REQUEST message:]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel information* IE in the *E-DCH FDD Information* IE, then the Node B shall use this information to optimise MAC-e scheduling decisions.]

- [FDD - If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the Node B shall use this information for the related resource allocation operation.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Serving E-DCH RL* IE indicating that the Serving E-DCH RL is in this Node B:]

 - [FDD - The Node B shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the corresponding RL and include these E-RNTI identifiers and the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

 - [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message for the initial grant for the serving E-DCH RL.]

 - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new configuration and include the new configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

 - [FDD - The Node B may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK ADDITION RESPONSE message for the serving E-DCH RL.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]

- [FDD - If in the RADIO LINK ADDITION REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD - If in the RADIO LINK ADDITION REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the Node B shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the Node B shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Reference Power Offset* IE, then the Node B may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Power Offset for Scheduling Info* IE, then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *SixteenQAM UL Operation Indicator* IE, the Node B shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]

 - [FDD - If SixteenQAM UL Operation is activated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [32]. If SixteenQAM UL Operation is deactivated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [32].]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer shall not be Established" for an E-DCH MAC-d flow, then the Node B shall not establish a transport bearer for the concerned E-DCH MAC-d flow and shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding E-DCH MAC-d flow in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for an E-DCH MAC-d flow and:]

 - [FDD - if the Node B establishes a transport bearer for the concerned E-DCH MAC-d flow, the Node B shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the E-DCH MAC-d flow being established.]

 - [FDD - if the Node B does not establish a transport bearer for the concerned E-DCH MAC-d flow, the Node B shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding E-DCH MAC-d flow in the RADIO LINK ADDITION RESPONSE message.]

[TDD - HS-DSCH Setup]:

[TDD - If the *HS-DSCH Information* IE is present in the RADIO LINK ADDITION REQUEST message, then]:

- [TDD - The Node B shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the HS-PDSCH RL ID IE.]

- [TDD - The Node B shall include the *HARQ Memory Partitioning* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated format in user plane frame structure for HS-DSCH channels [24] and MAC-hs [32].]

- [TDD - The Node B shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of transport bearer for every HS-DSCH MAC-d flow being established.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *HS-DSCH Information* IE for an HS-DSCH MAC-d flow, then the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the concerned HS-DSCH MAC-d flow. If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.]

- [TDD - The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message for every HS-DSCH MAC-d flow being established, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24]. If RADIO LINK ADDITION REQUEST message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to "Flexible MAC-d PDU Size", then Node B shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer received in RADIO LINK ADDITION REQUEST in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.]

- [TDD - The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [1.28Mcps TDD - If the *TSN-Length* IE is included in the *HS-DSCH TDD Information* IE, then the IE is used to indicate the TSN bits applied to the MAC-hs PDU frame.]

- [1.28Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Number of Supported Carriers* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE, the Node B shall use this information to allocate HSDPA resources over multiple carriers for the UE.]

- [1.28Mcps TDD - If the Node B allows UE to use HSDPA resources distributed over multiple carriers, the Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH over multiple carriers and include the *HS-SCCH Specific Information Response LCR per UARFCN* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [1.28Mcps TDD - If the Node B allows UE to use HSDPA resources distributed over multiple carriers, the Node B shall include the *HARQ Memory Partitioning per UARFCN* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [1.28Mcps TDD - If the Node B allows UE to apply HSDPA resources distributed over multiple carriers, the Node B may indicate the number of carriers actually used by the UE and include the *Multi-Carrier number* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [1.28Mcps TDD - If the Node B allows UE to use HSDPA resources distributed over multiple carriers, the Node B may include the *UsedFrequency* IE in the *HS-SCCH Specific Information Response LCR* IE in the RADIO LINK ADDITION RESPONSE message.]

- [1.28Mcps TDD - If the Node B allows UE to use HSDPA resources distributed over multiple carriers, the Node B may include the *UARFCN* IE in the *HS-SCCH Specific Information Response LCR per UARFCN* IE in the RADIO LINK ADDITION RESPONSE message.]

[TDD - Intra-Node B Serving HS-DSCH Radio Link Change]:

[TDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-PDSCH RL ID* IE, this indicates the new Serving HS-DSCH Radio Link]:

- [TDD - The Node B may include the *HARQ Memory Partitioning* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [TDD - The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] [7.68Mcps TDD - *HS-SCCH Specific Information Response 7.68Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

[TDD - E-DCH]:

[TDD - If the [3.84Mcps TDD - *E-DCH Information* IE][1.28Mcps TDD - *E-DCH Information* 1.28Mcps IE] [7.68Mcps TDD - *E-DCH Information 7.68Mcps* IE] is present in the RADIO LINK ADDITION REQUEST message:]

- [TDD - The Node B shall setup the requested E-DCH resources on the Radio Link indicated by the *E-DCH Serving RL* IE.]

- [TDD - If the *TNL QoS* IE is included in the *E-DCH MAC-d Flows Information TDD* IE for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *E-DCH MAC-d Flows Information TDD* IE for an E-DCH MAC-d flow, then the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the concerned E-DCH MAC-d flow.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flows Information TDD* IE, the Node B shall use this information for the related resource allocation operation.]

- [TDD - If in the RADIO LINK ADDITION REQUEST message the *E-DCH Grant Type* IE in the *E-DCH MAC-d Flows Information TDD* IE is set to "Non-scheduled" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants are configured for that E-DCH MAC-d flow and shall use the information within the [3.84Mcps TDD - *E-DCH Non-scheduled Grant Information TDD* IE] [1.28Mcps TDD - *E-DCH Non-scheduled Grant Information LCR TDD* IE] [7.68Mcps TDD - *E-DCH Non-scheduled Grant Information 7.68Mcps TDD* IE], if included, for the related resource allocation operation.]

- [TDD - If in the RADIO LINK ADDITION REQUEST message the *E-DCH Grant Type* IE in the *E-DCH MAC-d Flows Information TDD* IE is set to "Scheduled" the Node B shall assume that it may issue scheduled grants for the concerned E-DCH MAC-d flow.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flows Information TDD* IE, then the Node B shall use this information to optimise MAC-e scheduling decisions for the related queue.]

- [3.84Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH TDD Maximum Bitrate* IE in the *E-DCH TDD Information* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [1.28Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Physical Layer Category LCR* IE or *Extended E-DCH Physical Layer Category LCR* IE in the *E-DCH TDD Information LCR* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [7.68Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH TDD Maximum Bitrate 7.68Mcps* IE in the *E-DCH TDD Information 7.68Mcps* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Processing Overload Level* IE in the [3.84Mcps TDD - *E-DCH TDD Information* IE] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps* IE] [1.28Mcps TDD - *E-DCH TDD Information LCR* IE], then if the Node B could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]

- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Power Offset for Scheduling Info* IE in the [3.84Mcps TDD - *E-DCH TDD Information* IE] [1.28Mcps TDD - *E-DCH TDD Information LCR* IE] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps* IE], then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [TDD - The Node B shall allocate an E-RNTI identifier and include the E-RNTI identifier and the E-AGCH(s) assigned in the *E-DCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

[TDD - Intra-Node B Serving E-DCH Radio Link Change]:

[TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Serving RL* IE, this indicates the new Serving E-DCH Radio Link]:

- [TDD - The Node B shall allocate E-AGCH parameters [1.28Mcps TDD - E-HICH parameters] corresponding to the E-DCH and include the *E-AGCH Specific Information Response TDD* IE, [1.28Mcps TDD - *E-HICH Specific Information Response 1.28Mcps TDD* IE] in the *E-DCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

Response Message:

If all requested RLs are successfully added, the Node B shall respond with a RADIO LINK ADDITION RESPONSE message.

After sending the RADIO LINK ADDITION RESPONSE message, the Node B shall continuously attempt to obtain UL synchronisation on the Uu interface.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK ADDITION REQUEST message, the Node B shall:

- [FDD - start transmission on the DL DPDCH(s) of the new RL as specified in [16].]
- [TDD - start transmission on the new RL immediately as specified in [16].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK ADDITION REQUEST message, the Node B shall:

- if the *Delayed Activation* IE indicates "Separate Indication":
 - not start any DL transmission for the concerned RL on the Uu interface;
- if the *Delayed Activation* IE indicates "CFN":
 - [FDD - start transmission on the DL DPDCH(s) of the new RL as specified in [16], however never before the CFN indicated in the *Activation CFN* IE.]
 - [TDD - start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in [16].]

8.3.1.3 Unsuccessful Operation

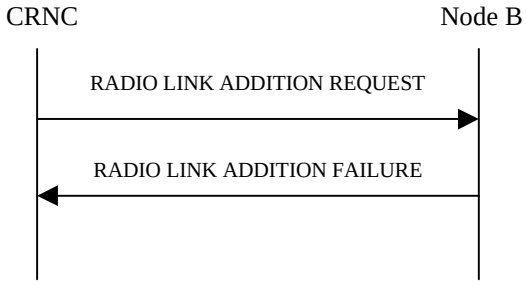


Figure 29: Radio Link Addition procedure: Unsuccessful Operation

If the establishment of at least one radio link is unsuccessful, the Node B shall respond with a RADIO LINK ADDITION FAILURE message. The message contains the failure cause in the *Cause* IE.

[FDD - If some RL(s) were established successfully, the Node B shall indicate this in the RADIO LINK ADDITION FAILURE message in the same way as in the RADIO LINK ADDITION RESPONSE message.]

[FDD - If the RADIO LINK ADDITION REQUEST contains a *C-ID* IE indicating that a Radio Link must be established on a Cell where DPC Mode change is not supported and DPC Mode can be changed for the relevant Node B

Communication Context, the Node B shall consider the procedure as failed for the concerned Radio Link and shall respond with a RADIO LINK ADDITION FAILURE with the appropriate cause value ("DPC Mode change not supported").]

[FDD - If the requested Serving HS-DSCH Radio Link Change was successful, or if the addition of the requested serving HS-DSCH Radio Link was successful or existed already but the Serving HS-DSCH Radio Link change was unsucessful, the Node B shall indicate this in the *HS-DSCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION FAILURE message.]

[FDD - If the requested Serving E-DCH Radio Link Change was successful, or if the addition of the requested serving E-DCH Radio Link was successful or existed already but the Serving E-DCH Radio Link change was unsucessful, the Node B shall indicate this in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION FAILURE message.]

Typical cause values are as follows:

Radio Network Layer Cause

- Combining not supported
- Combining Resources not available
- Requested Tx Diversity Mode not supported
- UL SF not supported
- DL SF not supported
- Reconfiguration CFN not elapsed
- CM not supported
- [FDD - DPC Mode change not supported]
- Delayed Activation not supported
- [FDD - Continuous Packet Connectivity DTX-DRX operation not available]
- [FDD - Continuous Packet Connectivity UE DTX Cycle not available]
- [FDD - MIMO not available]

Transport Layer Cause

- Transport Resources Unavailable

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

8.3.1.4 Abnormal conditions

[FDD - If the RADIO LINK ADDITION REQUEST message contains the *Compressed Mode Deactivation Flag* IE with the value "Deactivate" when compressed mode is active for the existing RL(s), and at least one of the new RL is added in a cell that has the same UARFCN (both UL and DL) of at least one cell with an already existing RL, the Node B shall regard the Radio Link Addition procedure as failed and shall respond with a RADIO LINK ADDITION FAILURE message with the cause value "Invalid CM settings".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the Node B Communication Context set to "Individual" in the existing RL(s) and if the *DL Reference Power* IEs are included in the *RL Information* IE but the *DL Reference Power* IE is not present for each RL in the *RL Information* IE, the Node B shall regard the Radio Link Addition procedure as failed and shall respond with a RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *DL Reference Power* IEs in the *RL Information* IE but the power balancing is not active in the existing RL(s) or the power balancing is active with the Power Balancing Adjustment Type of the Node B Communication Context set to "Common" in the existing RL(s), the Node B shall regard the Radio Link Addition procedure as failed and shall respond with a RADIO LINK ADDITION FAILURE message with the cause value "Power Balancing status not compatible".]

If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE or *RL Specific E-DCH Information* IE included in the *RL Information* IE for a specific RL [FDD - and the transport bearer for the DCH or E-DCH MAC-d flow is already established] and the *Diversity Control Field* IE is set to "Must", the Node B shall regard the Radio Link Addition procedure as failed and respond with the RADIO LINK ADDITION FAILURE message.

If ALCAP is not used, if the RADIO LINK ADDITION REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "May", the Node B shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.

If ALCAP is not used, if the RADIO LINK ADDITION REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must Not", the Node B shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.

If the RADIO LINK ADDITION REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport bearer intended to be established, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.

[1.28Mcps TDD - For a multi-frequency cell, if the RADIO LINK ADDITION REQUEST message does not include the *UARFCN* IE, the Node B shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.]

[1.28Mcps TDD - For a single frequency cell, if the RADIO LINK ADDITION REQUEST message includes the *UARFCN* IE, the Node B shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to use F-DPCH in the downlink, if at least one Transmission Gap Pattern Sequence is configured with an SF/2 downlink compressed mode method in the Compressed Mode Configuration and if the RADIO LINK ADDITION REQUEST message includes the *Transmission Gap Pattern Sequence Code Information* IE for any DL Channelisation Code, then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH Serving Cell Change Information* IE but not the *HS-DSCH FDD Information* IE and the Node B Communication Context is not configured for HS-DSCH, then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Serving E-DCH RL* IE but the Node B Communication Context is not configured for E-DCH, then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Serving Cell Change CFN* IE but neither the *Serving E-DCH RL* IE nor *HS-DSCH Serving Cell Change Information* IE is included into, then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK ADDITION REQUEST message, but the *E-DPCH Information* IE is not present, then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH RL Indication* IE set to "E-DCH", but no *E-DCH FDD Information* IE, and the Node B Communication Context is not configured for E-DCH, then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH FDD Information* IE but no *E-DCH RL Indication* IE set to "E-DCH", then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[TDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-PDSCH RL-ID* IE not equal to the *RL ID* IE, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Serving RL* IE not equal to the *RL ID* IE, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[TDD - If the RADIO LINK ADDITION REQUEST message contains the *HS-DSCH Information* IE and if the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

If the RADIO LINK ADDITION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE [FDD - in the *HS-DSCH Serving Cell Change Information*] and the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE [FDD - in the *HS-DSCH Serving Cell Change Information*] has the value "Indexed MAC-d PDU Size", the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.

If the RADIO LINK ADDITION REQUEST message does not include the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE [FDD - in the *HS-DSCH Serving Cell Change Information*] and the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE [FDD - in the *HS-DSCH Serving Cell Change Information*] has the value "Flexible MAC-d PDU Size", the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.

[TDD - If the RADIO LINK ADDITION REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for HS-DSCH MAC-d flow being added, and not both are present for a transport bearer intended to be established, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[TDD - If the RADIO LINK ADDITION REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for E-DCH MAC-d flow being added, and not both are present for a transport bearer intended to be established, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

If the RADIO LINK ADDITION REQUEST message contains the *HS-PDSCH RL ID* IE [FDD - in the *HS-DSCH Serving Cell Change Information* IE] and/or *Serving E-DCH RL* IE and if both HS-DSCH and E-DCH are configured in the Node B but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.

[FDD - If the RADIO LINK ADDITION REQUEST message contains the *HS-DSCH Serving Cell Change Information* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as 'HS-DSCH not configured' then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message contains the *Transport Bearer Not Requested Indicator* IE for a DCH but the DCH is configured to be included as a part of the downlink CCTrCH, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message contains the *MIMO Activation Indicator* IE and/or *Sixtyfour QAM Usage Allowed Indicator* IE set to "Allowed", but does not contain the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size", then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

8.3.2 Synchronised Radio Link Reconfiguration Preparation

8.3.2.1 General

The Synchronised Radio Link Reconfiguration Preparation procedure is used to prepare a new configuration of Radio Link(s) related to one Node B Communication Context.

The Synchronised Radio Link Reconfiguration Preparation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.2.2 Successful Operation

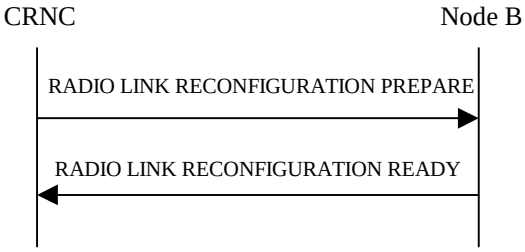


Figure 30: Synchronised Radio Link Reconfiguration Preparation procedure, Successful Operation

The Synchronised Radio Link Reconfiguration Preparation procedure is initiated by the CRNC by sending the RADIO LINK RECONFIGURATION PREPARE message to the Node B. The message shall use the Communication Control Port assigned for this Node B Communication Context.

Upon reception, the Node B shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The Node B shall prioritise resource allocation for the RL(s) to be modified according to Annex A.

DCH Modification:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs To Modify* IE then the Node B shall treat them each as follows:

- If the *DCHs To Modify* IE includes the *Frame Handling Priority* IE, the Node B should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new configuration has been activated.

- If the *DCHs To Modify* IE includes the *Transport Format Set* IE for the UL of a DCH, the Node B shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.

- If the *DCHs To Modify* IE includes the *TNL QoS* IE for a DCH or a set of co-ordinated DCHs to be modified and if ALCAP is not used, the Node B may store this information for this DCH in the new configuration. The *TNL QoS* IE may be used to determine the transport bearer characteristics to apply in the uplink for the related DCH or set of co-ordinated DCHs.

- If the *DCHs To Modify* IE includes the *Transport Format Set* IE for the DL of a DCH, the Node B shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.

- If the *DCHs To Modify* IE includes the *Allocation/Retention Priority* IE for a DCH, the Node B shall apply the new Allocation/Retention Priority to this DCH in the new configuration according to Annex A.

- If the *DCHs To Modify* IE includes multiple *DCH Specific Info* IEs, the Node B shall treat the DCHs in the *DCHs to Modify* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

- [FDD - If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to "Uplink DCH only", the Node BNode B shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.]

- [FDD - If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to "Downlink DCH only", the Node BNode B shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.]

- If the *DCHs To Modify* IE includes the *UL FP Mode* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, the Node B shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE includes the *ToAWS* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, the Node B shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE includes the *ToAWE* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, the Node B shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- [TDD - If the *DCHs To Modify* IE includes the *CCTrCH ID* IE for the DL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Downlink of this DCH in the new configuration.]

- [TDD - If the *DCHs To Modify* IE includes the *CCTrCH ID* IE for the UL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Uplink of this DCH in the new configuration.]

DCH Addition:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs To Add* IEs then the Node B shall treat them each as follows:

- If the *DCHs To Add* IE includes multiple *DCH Specific Info* IEs, the Node B shall treat the DCHs in the *DCHs To Add* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only", the Node B shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.

- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only", the Node B shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.

- [FDD - For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Transport channel BER from that DCH shall be the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE, ref. [16]. If the *QE-Selector* IE is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [16].]

- For a set of co-ordinated DCHs, the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" shall be used for the QE in the UL data frames, ref. [16]. [FDD - If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE, ref. [16]. If all DCHs have the *QE-Selector* IE set to "non-selected", the Physical channel BER shall be used for the QE, ref. [16].]

- The Node B should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the Node B once the new configuration has been activated.

- If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the Node B may store this information for this DCH in the new configuration. The *TNL QoS* IE may be used to determine the transport bearer characteristics to apply for the uplink between the Node B and the CRNC for the related DCH or set of co-ordinated DCHs.

- The Node B shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- The Node B shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Startpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- The Node B shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Endpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- [TDD - The Node B shall apply the *CCTrCH ID* IE (for the DL) in the Downlink of this DCH in the new configuration.]

- [TDD - The Node B shall apply the *CCTrCH ID* IE (for the UL) in the Uplink of this DCH in the new configuration.]

DCH Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs To Delete* IE, the Node B shall not include the referenced DCHs in the new configuration.

If all of the DCHs belonging to a set of co-ordinated DCHs are requested to be deleted, the Node B shall not include this set of co-ordinated DCHs in the new configuration.

Physical Channel Modification:

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *UL DPCH Information* IE, then the Node B shall apply the parameters to the new configuration as follows:]

- [FDD - If the *UL DPCH Information* IE includes the *Uplink Scrambling Code* IE, the Node B shall apply this Uplink Scrambling Code to the new configuration.]

- [FDD - If the *UL DPCH Information* IE includes the *Min UL Channelisation Code Length* IE, the Node B shall apply the value in the new configuration. The Node B shall apply the contents of the *Max Number of UL DPDCHs* IE (if it is included) in the new configuration.]

- [FDD - If the *UL DPCH Information* IE includes the *UL SIR Target* IE, the Node B shall use the value for the UL inner loop power control when the new configuration is being used.]

- [FDD - If the *UL DPCH Information* IE includes the *Puncture Limit* IE, the Node B shall apply the value in the uplink of the new configuration.]

- [FDD - The Node B shall use the *TFCS* IE for the UL (if present) when reserving resources for the uplink of the new configuration. The Node B shall apply the new TFCS in the Uplink of the new configuration.]

- [FDD - If the *UL DPCH Information* IE includes the *UL DPCCH Slot Format* IE, the Node B shall set the new Uplink DPCCH Structure to the new configuration.]

- [FDD - If the *UL DPCH Information* IE includes the *Diversity Mode* IE, the Node B shall apply diversity according to the given value.]

- [FDD - If the *UL DPCH Information* IE includes the *UL DPDCH Indicator For E-DCH Operation* IE and it is set to "UL DPDCH not present", the UL DPDCH resources shall be removed from the configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *DL DPCH Information* IE and the concerned Node B Communication Context is configured to use F-DPCH in the downlink in the old configuration, the Node B shall configure the concerned Node B Communication Context to use DPCH in the downlink in the new configuration.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *DL DPCH Power Information* IE, the Node B shall use the information contained in it for the power settings of the DL DPCH. In particular, if the received *Inner Loop DL PC Status* IE is set to "Active", the Node B shall activate the inner loop DL power control for all RLs. If *Inner Loop DL PC Status* IE is set to "Inactive", the Node B shall deactivate the inner loop DL power control for all RLs according to ref. [10].]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes a *DL DPCH Information* IE, the Node B shall apply the parameters to the new configuration as follows:]

- [FDD - The Node B shall use the *TFCS* IE for the DL (if it is present) when reserving resources for the downlink of the new configuration. The Node B shall apply the new TFCS in the Downlink of the new configuration.]

- [FDD - If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE or the *TFCI Presence* IE, the Node B shall use the information when building TFCIs in the new configuration.]

- [FDD - If the *DL DPCH Information* IE includes the *DL DPCH Slot Format* IE, the Node B shall set the new Downlink DPCH Structure to the new configuration.]

- [FDD - If the *DL DPCH Information* IE includes the *Multiplexing Position* IE, the Node B shall apply the indicated multiplexing type in the new configuration.]

- [FDD - If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Used", the Node B shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]

- [FDD - If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Not Used", the Node B shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *F-DPCH Information* IE, the Node B shall configure the concerned Node B Communication Context to use F-DPCH in the downlink in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transmission Gap Pattern Sequence Information* IE, the Node B shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode Configuration. Any Transmission Gap Pattern Sequences already existing in the previous Compressed Mode Configuration are replaced by the new sequences once the new Compressed Mode Configuration has been activated or once the previous Compressed Mode Configuration has been deactivated. This new Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or Node B Communication Context is deleted.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity DTX-DRX Information* IE, then:]

- [FDD - The Node B shall configure the concerned Node B Communication Context for DTX operation according to [10].]

- [FDD - If *DRX Information* IE is included in the *Continuous Packet Connectivity DTX-DRX Information* IE, then the Node B shall configure the concerned Node B Communication Context for DRX operation according to [10].]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then:]

- [FDD - If the *UE DTX DRX Offset* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the Node B shall apply the indicated Offset in *UE DTX DRX Cycle* IE in the new configuration.]

- [FDD - If the *Enabling Delay* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the Node B shall use this value to determine the beginning of uplink transmission in the new configuration according to [10].]

- [FDD - If the *DTX Information To Modify* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the Node B shall use this information to modify the indicated DTX Information parameter in the new configuration.]

- [FDD - If the *DRX Information To Modify* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the Node B shall use this information to modify the indicated DRX Information in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity HS-SCCH less Information* IE, then:]

- [FDD - The Node B shall configure the Serving HS-DSCH Radio Link for Continuous Packet Connectivity HS-SCCH less operation in the new configuration according to [10].]

- [FDD - The Node B shall allocate the HS-PDSCH codes needed for HS-SCCH less operation and include the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - If at least one of *HS-PDSCH Second Code Support* IE is set to "True", then the Node B shall include *HS-PDSCH Second Code Index* IE in the RADIO LINK RECONFIGURATION READY message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE, then the Node B shall deactivate the Continuous Packet Connectivity HS-SCCH less operation for the HS-DSCH Radio Link.]

[FDD - E-DPCH Handling]:

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-DPCH Information* IE, the Node B shall apply the parameters to the new configuration as follows:]

- [FDD - If the *E-DPCH Information* IE includes the *Maximum Set of E-DPDCHs* IE, the Node B shall apply the contents of the Maximum Set in the new configuration.]
- [FDD - If the *E-DPCH Information* IE includes the *Puncture Limit* IE, the Node B shall apply the value in the uplink of the new configuration]
- [FDD - If the *E-DPCH Information* IE includes the *E-TFCS Information* IE, the Node B shall use the *E-TFCS Information* IE for the E-DCH when reserving resources for the uplink of the new configuration. The Node B shall apply the new TFCS in the uplink of the new configuration. If the *E-TFCS Information* IE contains the *E-DCH Minimum Set E-TFCI* IE the Node B shall use the value for the related resource allocation operation.]
- [FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DPDCH Power Interpolation* IE, the Node B shall use the value to determine the applicable E-DPDCH power formula defined in [10]. If the *E-DPDCH Power Interpolation* IE is not present, the Node B shall use the E-DPDCH power extrapolation formula defined in [10] if the *E-DCH FDD Information* IE is included in the RADIO LINK RECONFIGURATION PREPARE message.]
- [FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-TFCI Boost Information* IE, the Node B shall use the information according to [10]. If the *E-TFCI Boost Information* IE is not present, the Node B shall use the E-TFCI BetaEC Boost value "127" in the algorithm defined in [10] if the *E-DCH FDD Information* IE is included in the RADIO LINK RECONFIGURATION PREPARE message.]
- [FDD - If the *E-DPCH Information* IE includes the *E-TTI* IE, the Node B shall use the value when the new configuration is being used.]
- [FDD - If the *E-DPCH Information* IE includes the *E-DPCCH Power Offset* IE, the Node B shall use the value when the new configuration is being used.]
- [FDD - If the *E-DPCH Information* IE includes the *E-RGCH 2-Index-Step* IE, the Node B shall use the value when the new configuration is being used.]
- [FDD - If the *E-DPCH Information* IE includes the *E-RGCH 3-Index-Step* IE, the Node B shall use the value when the new configuration is being used.]
- [FDD - If the *E-DPCH Information* IE includes the *HARQ Info for E-DCH* IE, the Node B shall use the value when the new configuration is being used.]
- [FDD - If the *E-DPCH Information* IE includes the *HS-DSCH Configured Indicator* IE, the Node B shall use the value when the new configuration is being used.]

[TDD - UL/DL CCTrCH Modification]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH to Modify* or *DL CCTrCH to Modify* IE, then the Node B shall treat them each as follows:]

- [TDD - If the IE includes any of the *TFCS* IE, *TFCI coding* IE or *Puncture Limit* IE, the Node B shall apply these as the new values, otherwise the old values specified for this CCTrCH are still applicable.]
- [TDD - If the IE includes any *UL DPCH To Add* IE, *UL DPCH To Add LCR* IE, *UL DPCH To Add 7.68Mcps* IE, *DL DPCH To Add 7.68Mcps* IE, *DL DPCH To Add LCR* IE, or *DL DPCH To Add* IE, the Node B shall include this DPCH in the new configuration.]
- [TDD - If the IE includes any *UL DPCH To Delete* IE or *DL DPCH To Delete* IE, the Node B shall remove this DPCH in the new configuration.]
- [TDD - If the IE includes any *UL DPCH To Modify* IE or *DL DPCH To Modify* IE and includes any of the *Repetition Period* IE, *Repetition Length* IE or *TDD DPCH Offset* IE, or the message includes UL/DL Timeslot

Information and includes any of the [3.84Mcps TDD - *Midamble Shift And Burst Type* IE], [1.28Mcps TDD - *Midamble Shift LCR* IE], [7.68Mcps TDD - *Midamble Shift And Burst Type 7.68Mcps* IE], or *TFCI Presence* IE or the message includes UL/DL Code information and includes [3.84Mcps TDD - *TDD Channelisation Code* IE], [1.28Mcps TDD - *TDD Channelisation Code LCR* IE] , [7.68Mcps TDD - *TDD Channelisation Code 7.68Mcps* IE], [1.28Mcps TDD - *TDD UL DPCH Time Slot Format LCR* IE or *TDD DL DPCH Time Slot Format LCR* IE], the Node B shall apply these specified information elements as the new values, otherwise the old values specified for this DPCH configuration are still applicable.]

- [1.28Mcps TDD - If the *UL CCTrCH To Modify* IE includes the *UL SIR Target* IE, the Node B shall use the value for the UL inner loop power control according [19] and [21] when the new configuration is being used.]

- [1.28Mcps TDD - If the *UL CCTrCH to Modify* IE includes the *TDD TPC UL Step Size* IE, the Node B shall apply this value to the uplink TPC step size in the new configuration.]

- [TDD - If the *DL CCTrCH to Modify* IE includes the *TDD TPC DL Step Size* IE, the Node B shall apply this value to the downlink TPC step size in the new configuration.]

- [1.28Mcps TDD - If the *DL DPCH To Modify Per RL* IE includes the *TDD TPC DL Step Size* IE and the *RL ID* IE in the *DL DPCH To Modify Per RL* IE is same as the *HS-PDSCH RL ID* IE , the Node B shall apply this value to the HS-SCCH TPC step size in the new configuration.]

- [1.28Mcps TDD - If the *UL Timeslot Information LCR* IE includes the *PLCCH Information* IE, the Node B shall delete / add / modify the PLCCH assignment according to the content when the new configuration is used.]

[TDD - UL/DL CCTrCH Addition]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH To Add* IE or *DL CCTrCH To Add* IE, the Node B shall include this CCTrCH in the new configuration.]

[TDD - If the *UL/DL CCTrCH To Add* IE includes any [3.84Mcps TDD - *UL/DL DPCH Information* IE] [1.28Mcps TDD - *UL/DL DPCH Information LCR* IE] [7.68Mcps TDD - *TDD Channelisation Code 7.68Mcps* IE], the Node B shall reserve necessary resources for the new configuration of the UL/DL DPCH(s) according to the parameters given in the message.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes *TDD TPC DL Step Size* IE within a *DL CCTrCH To Add* IE, the Node B shall set the downlink TPC step size of that CCTrCH to that value, otherwise the Node B shall set the TPC step size of that CCTrCH to the same value as the lowest numbered DL CCTrCH in the current configuration.]

[1.28Mcps TDD - If the *UL CCTrCH To Add* IE includes the *TDD TPC UL Step Size* IE, the Node B shall apply the uplink TPC step size in the new configuration.]

[1.28Mcps TDD - The Node B shall use the *UL SIR Target* IE in the *UL CCTrCH To Add* IE as the UL SIR value for the inner loop power control for this CCTrCH according [19] and [21] in the new configuration.]

[1.28Mcps TDD - If the *DL DPCH To Add Per RL* IE includes the *TDD TPC DL Step Size* IE and the *RL ID* IE in the *DL DPCH To Add Per RL* IE is same as the *HS-PDSCH RL ID* IE , the Node B shall apply this value to the HS-SCCH TPC step size in the new configuration.]

[1.28Mcps TDD - If the *UL Timeslot Information LCR* IE includes the *PLCCH Information* IE, the Node B shall add the PLCCH assignment when the new configuration is used.]

[TDD - UL/DL CCTrCH Deletion]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any UL or DL CCTrCH to be deleted , the Node B shall remove this CCTrCH in the new configuration.]

DL Power Control:

- [FDD - If the *RL Information* IE includes the *DL Reference Power* IEs and the power balancing is active, the Node B shall update the reference power of the power balancing in the indicated RL(s), if updating of power balancing parameters by the RADIO LINK RECONFIGURATION PREPARE message is supported, when the new configuration has been activated, according to subclause 8.3.7, using the *DL Reference Power* IE. If the CFN modulo the value of the *Adjustment Period* IE is not equal to 0, the power balancing continues with the old

reference power until the end of the current adjustment period, and the updated reference power shall be used from the next adjustment period.]

[FDD - If updating of power balancing parameters by the RADIO LINK RECONFIGURATION PREPARE message is supported by the Node B, the Node B shall include the *DL Power Balancing Updated Indicator* IE in the *RL Information Response* IE for each affected RL in the RADIO LINK RECONFIGURATION READY message.]

[TDD - DSCH Addition/Modification/Deletion]:

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Add*, *DSCH To Modify* or *DSCH To Delete* IE, then the Node B shall use this information to add/modify/delete the indicated DSCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.]

[TDD - The Node B shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DSCH.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *TNL QoS* IE in the *DSCH TDD Information* IE and if ALCAP is not used, the Node B may use the *TNL QoS* IE to determine the transport bearer characteristics to apply in the uplink for the related DSCH.]

[TDD - USCH Addition/Modification/Deletion]:

- [TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes USCH information for the USCHs to be added/modified/deleted then the Node B shall use this information to add/modify/delete the indicated USCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.]

- [TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes USCH information for the USCHs to be added/modified, if the *TNL QoS* IE is included and if ALCAP is not used, the Node B may use the *TNL QoS* IE to determine the transport bearer characteristics to apply between the Node B and the CRNC for the related USCHs.]

- [TDD - The Node B shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each USCH.]

RL Information:

If the RADIO LINK RECONFIGURATION PREPARE message includes the *RL Information* IE, the Node B shall treat it as follows:

- [FDD - When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *p*th to "*PhCH number p*".]

- [FDD - If the *RL Information* IE includes a *DL Code Information* IE, the Node B shall apply the values in the new configuration.]

- [FDD - If the *RL Information* IE contains the *Transmission Gap Pattern Sequence Code Information* IE in the *DL Code Information* IE for any of the allocated DL Channelisation Codes, the Node B shall apply the alternate scrambling code as indicated whenever the downlink compressed mode method SF/2 is active in the new configuration.]

- [FDD - If the *RL Information* IE includes the *Maximum DL Power* and/or the *Minimum DL Power* IEs, the Node B shall apply the values in the new configuration. During compressed mode, the δP_{curr}, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

- [3.84 Mcps TDD and 7.68Mcps TDD - If the *DL CCTrCH To Add* IE is included, the Node B shall determine the maximum CCTrCH DL power for the DCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the maximum CCTrCH DL power, otherwise the maximum CCTrCH DL power is the *Maximum Downlink Power* IE included in the *RL Information* IE. If no *Maximum Downlink Power* IE is included (even if *CCTrCH Maximum DL Transmission Power* IEs are included), any maximum DL power stored for already existing DCH type CCTrCHs for this Node B Communication Context shall be applied.]

- [3.84 Mcps TDD and 7.68Mcps TDD - If the *DL CCTrCH To Add* IE is included, the Node B shall determine the minimum CCTrCH DL power for the DCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the minimum CCTrCH DL power, otherwise the minimum CCTrCH DL power is the *Minimum Downlink Power* IE included in the *RL Information* IE. If no *Minimum Downlink Power* IE is included (even if *CCTrCH Minimum DL Transmission Power* IEs are included), any minimum DL power stored for already existing DCH type CCTrCHs for this Node B Communication Context shall be applied.]

- [3.84 Mcps TDD and 7.68Mcps TDD - If the *DL CCTrCH To Modify* IE is included and *Maximum CCTrCH DL Power to Modify* IE and/or *Minimum CCTrCH DL Power to Modify* IE are included, the Node B shall apply the values in the new configuration for this DCH type CCTrCH. If the *RL Information* IE includes *Maximum Downlink Power* and/or the *Minimum Downlink Power* IEs, the Node B shall apply the values for all other DCH type CCTrCHs of the radio link.]

- [1.28 Mcps TDD - If the *DL CCTrCH To Add* IE is included, the Node B shall determine the maximum DL power for each timeslot within a DCH type CCTrCH by the following rule: If the *Maximum DL Power* IE is included in the *DL Timeslot Information LCR* IE for that timeslot, then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum Downlink Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a higher power on any applicable DL DPCH. If no *Maximum Downlink Power* IE is included, any maximum DL power stored for already existing timeslots for this Node B Communication Context shall be applied.]

- [1.28 Mcps TDD - If the *DL CCTrCH To Add* IE is included, the Node B shall determine the minimum DL power for each timeslot within a DCH type CCTrCH by the following rule: If the *Minimum DL Power* IE is included in the *DL Timeslot Information LCR* IE for that timeslot, then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum Downlink Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a lower power on any applicable DL DPCH. If no *Minimum Downlink Power* IE is included, any minimum DL power stored for already existing timeslots for this Node B Communication Context shall be applied.]

- [1.28 Mcps TDD - If the *DL CCTrCH To Modify* IE is included and *Maximum DL Power to Modify LCR* IE and/or *Minimum DL Power to Modify LCR* IE are included, the Node B shall apply the values in the new configuration for this timeslot, if the *RL Information* IE includes *Maximum Downlink Power* and/or the *Minimum Downlink Power* IEs, the Node B shall apply the values in the new configuration for all other timeslots.]

- [3.84Mcps TDD and 7.68Mcps TDD - If the *RL Information* IE includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Initial DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the initial CCTrCH DL power, otherwise the initial CCTrCH DL power is the *Initial DL Transmission Power* IE included in the *RL Information* IE. The Node B shall apply the determined initial CCTrCH DL power to the transmission on each DPCH of the CCTrCH when starting transmission on a new CCTrCH until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included with a new CCTrCH (even if *CCTrCH Initial DL Transmission Power* IEs are included), the Node B shall use any transmission power level currently used on already existing CCTrCHs when starting transmission for a new CCTrCH. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 4.2.3.4).]

- [3.84Mcps TDD and 7.68Mcps TDD - The initial power, maximum power, and minimum power for a DSCH type CCTrCH to be added or modified, shall be determined as follows:

 - If the DSCH type CCTrCH is paired with an uplink CCTrCH(s) for inner loop power control, the minimum, maximum and initial power for each PDSCH is determined in the same way as described above for DCH type CCTrCHs.

 - If the DSCH type CCTrCH is not paired with an uplink CCTrCH(s) for inner loop power control, the PDSCH transmission power is DSCH Data Frame Protocol signalled [24], with the maximum value determined in the same way as described above for DCH type CCTrCHs. The minimum and initial powers, however, are subject to control by the CRNC via the frame protocol].

- [1.28 Mcps TDD - If the *RL Information* IE includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial DL power for each timeslot in a DCH type CCTrCH by the following rule: If the *Initial DL Transmission Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power

for the initial DL power, otherwise the initial DL power is the *Initial DL Transmission Power* IE included in the *RL Information* IE. The Node B shall apply the given power to the transmission on each DL DPCH and on each Time Slot of the CCTrCH when starting transmission until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included, the Node B shall use any transmission power level currently used on already existing timeslots for this Node B Communication Context. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4).]

- [1.28Mcps TDD - If the *RL Information* IE includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial DL power for each timeslot within the DSCH type CCTrCH by the following rule: If both the *CCTrCH Initial DL Transmission Power* IE and the *DL Time Slot ISCP Info LCR* IE are included then the Node B shall use that power for the PDSCH power, otherwise the PDSCH power is the *Initial DL Transmission Power* IE included in the *RL Information* IE. If *DL Time Slot ISCP info LCR* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged. The Node B shall apply the given power to the transmission on each PDSCH and on each timeslot of the CCTrCH when starting transmission on a new CCTrCH until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included with a new CCTrCH (even if *CCTrCH Initial DL Transmission Power* IEs are included), the Node B shall use any transmission power level currently used on already existing RL/timeslots when starting transmission for a new CCTrCH. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4).]

- [1.28 Mcps TDD - If the *DL CCTrCH To Add* IE is included, the Node B shall determine the maximum DL power for each timeslot within a DSCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE is included then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum Downlink Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a higher power on any applicable DL PDSCH. If no *Maximum Downlink Power* IE is included, any maximum DL power stored for already existing timeslots for this Node B Communication Context shall be applied.]

- [1.28 Mcps TDD - If the *DL CCTrCH To Add* IE is included, the Node B shall determine the minimum DL power for each timeslot within a DSCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE is included then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum Downlink Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a lower power on any applicable DL PDSCH. If no *Minimum Downlink Power* IE is included, any minimum DL power stored for already existing timeslots for this Node B Communication Context shall be applied.]

- [1.28 Mcps TDD - If the *DL CCTrCH To Modify* IE is included and the *Maximum CCTrCH DL Power to Modify* IE and/or the *Minimum CCTrCH DL Power to Modify* IE are included, the Node B shall apply the values in the new configuration for this DSCH type CCTrCH, if the *RL Information* IE includes *Maximum Downlink Power* and/or the *Minimum Downlink Power* IEs, the Node B shall apply the values in the new configuration for all other timeslots.]

- [FDD - If the *RL Information* IE includes the *DL DPCH Timing Adjustment* IE, the Node B shall adjust the timing of the radio link accordingly in the new configuration.]

- [1.28Mcps TDD - If the *RL Information* IE message contains the *Uplink Synchronisation Parameters LCR* IE, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize* IE and *Uplink Synchronisation Frequency* IE when evaluating the timing of the UL synchronisation.]

- [FDD - If the *RL Information* IE includes the *F-DPCH Slot Format* IE and if the Node B Communication Context is configured to use F-DPCH in the downlink, then the Node B shall use this information to configure the F-DPCH slot format of each RL according to [7].]

[TDD - PDSCH RL ID]:

- [TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *PDSCH RL ID* IE then in the new configuration the Node B shall use the PDSCH and/or PUSCH in this radio link.]

Signalling bearer rearrangement:

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Signalling Bearer Request Indicator* IE the Node B shall allocate a new Communication Control Port for the control of the Node B Communication Context and include the *Target Communication Control Port ID* IE in the RADIO LINK RECONFIGURATION READY message.

HS-DSCH Setup:

If the *HS-DSCH Information* IE is present in the RADIO LINK RECONFIGURATION PREPARE message, then:

- The Node B shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.

- The Node B shall include the *HARQ Memory Partitioning* IE in the [FDD - *HS-DSCH FDD Information Response* IE] [TDD - *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message. [FDD - The *HARQ Memory Partitioning* IE shall either contain the *HARQ Memory Partitioning Information Extension For MIMO* IE or the *Number of Processes* IE set to a value higher than "8", if the *MIMO Activation Indicator* IE is included in the *HS-DSCH Information* IE.]

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the [FDD - *HS-DSCH FDD Information Response* IE] [TDD - *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message for every HS-DSCH MAC-d flow being established, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24]. If RADIO LINK RECONFIGURATION PREPARE message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to "Flexible MAC-d PDU Size", then Node B shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer received in RADIO LINK RECONFIGURATION PREPARE in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the Node B may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Measurement Power Offset* IE in the *HS-DSCH Information* IE, then the Node B shall use the measurement power offset as described in ref [10], subclause 6A.2.]

- [FDD - The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD - The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] [7.68Mcps TDD - *HS-SCCH Specific Information Response 7.68Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated HARQ Preamble Mode as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is

applied, the Node B shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the Node B shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-SICH SIR Target* IE in the *HS-DSCH Information* IE, the Node B shall use this value to determine the HS-SICH SIR Target. The *HS-SICH SIR Target* IE indicates the received UL SIR target of HS-SICH NACK for this UE.]

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated format in user plane frame structure for HS-DSCH channels [24] and MAC-hs [32].

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.

- [FDD - If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the Node B shall activate the MIMO mode for the HS-DSCH Radio Link and the Node B shall decide the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO N/M Ratio* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the Node B may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the Node B shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE with value set to "not allowed", then the Node B shall not use 64 QAM for the HS-DSCH Radio Link.]

- [1.28Mcps TDD - For a multi-frequency cell, if the RADIO LINK RECONFIGURATION PREPARE message includes the *Number of Supported Carriers* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE, the Node B shall use this information to allocate HSDPA resources over multiple frequencies for UE.]

- [1.28Mcps TDD - For a multi-frequency cell, if the Node B allows UE to use HSDPA resources distributed over multiple frequencies, the Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH over multiple frequencies and include the *HS-SCCH Specific Information Response LCR per UARFCN* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [1.28Mcps TDD - For a multi-frequency cell, if the Node B allows UE to use HSDPA resources distributed over multiple frequencies, the Node B shall include the *HARQ Memory Partitioning per UARFCN* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [1.28Mcps TDD - For a multi-frequency cell, if the Node B allows UE to use HSDPA resources distributed over multiple frequencies, the Node B may indicate the number of multiple frequencies actually used by the UE and include the *Multi-Carrier number* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

Intra-Node B Serving HS-DSCH Radio Link Change:

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-PDSCH RL ID* IE, this indicates the new Serving HS-DSCH Radio Link:

- In the new configuration the Node B shall de-allocate the HS-PDSCH resources of the old Serving HS-PDSCH Radio Link and allocate the HS-PDSCH resources for the new Serving HS-PDSCH Radio Link.

- The Node B may include the *HARQ Memory Partitioning* IE in the [FDD - *HS-DSCH FDD Information Response* IE] [TDD - *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message. [FDD - The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]

- [FDD - The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD - The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] [7.68Mcps TDD - *HS-SCCH Specific Information Response 7.68Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.

- If a reset of the MAC-hs is not required the Node B shall include the *MAC-hs Reset Indicator* IE in the RADIO LINK RECONFIGURATION READY message.

HS-DSCH Modification:

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Information To Modify* IE, then:

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE for every HS-DSCH MAC-d flow being modified for which the establishment of one or several new Priority Queues was requested, if the Node B allows the CRNC to start the transmission of MAC-d PDUs for the Priority Queue(s) being established before the Node B has allocated capacity on user plane as described in [24]. If RADIO LINK RECONFIGURATION PREPARE message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information To Modify* IE set to "Flexible MAC-d PDU Size", then Node B shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer received in RADIO LINK RECONFIGURATION PREPARE in the *HS-DSCH Information To Modify* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH Information To Modify* IE, the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH Information To Modify* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH Information To Modify* IE, then the Node B shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Window Size* IE or *T1* IE in the *HS-DSCH Information To Modify* IE, then the Node B shall use the indicated values in the new configuration for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-d PDU Size Index* IE in the *Modify Priority Queue* choice, the Node B shall delete the previous list of MAC-d PDU Size Index values for the related HSDPA Priority Queue and use the MAC-d PDU Size Index values indicated in the *MAC-d PDU Size Index* IE in the new configuration.

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *CQI Feedback Cycle k* IE, the *CQI Repetition Factor* IE , the *ACK-NACK Repetition Factor* IE, the *ACK Power Offset* IE, the *NACK Power Offset* IE or the *CQI Power Offset* IE in the *HS-DSCH Information To Modify* IE, then the Node B shall use the indicated CQI Feedback Cycle k value, the CQI Repetition Factor or the ACK-NACK Repetition Factor, ACK Power Offset, the NACK Power Offset or the CQI Power Offset in the new configuration.]

- [FDD - If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH Information To Modify* IE, the Node B may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes *Measurement Power Offset* IE in the *HS-DSCH Information* IE or the *HS-DSCH Information To Modify* IE, then the Node B shall use the measurement power offset as described in [10] subclause 6A.2.]

- [TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *TDD ACK NACK Power Offset* IE in the *HS-DSCH Information To Modify* IE, the Node B shall use the indicated power offset in the new configuration.]

- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the HS-SICH SIR Target IE in the *HS-DSCH Information To Modify* IE, the Node B shall use this value to the SIR Target in the new configuration. The *HS-SICH SIR Target* IE indicates the received UL SIR target of HS-SICH NACK for this UE.]

- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the HS-SICH TPC step size IE in the *HS-DSCH Information To Modify* IE, the Node B shall use this value to the HS-SICH TPC step size in the new configuration.]

- [FDD - If the *HS-DSCH Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, then the Node B may modify the HS-SCCH codes corresponding to the HS-DSCH. The Node B shall then report the codes which are used in the new configuration specified in the *HS-SCCH Specific Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD - If the *HS-DSCH Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, then the Node B may modify the HS-SCCH parameters corresponding to the HS-DSCH. The Node B shall then report the values for the parameters which are used in the new configuration specified in the [3.84Mcps TDD - *HS-SCCH Specific Information Response*] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR*] [7.68Mcps TDD - *HS-SCCH Specific Information Response 7.68Mcps*] IEs in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - If the *HS-DSCH Information To Modify* IE includes the *HS-PDSCH Code Change Grant* IE, then the Node B may modify the HS-PDSCH codes corresponding to the HS-DSCH. The Node B shall then report the codes which are used in the new configuration specified in the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the RADIO LINK RECONFIGURATION READY message. If the concerned Node B is not in Continuous Packet Connectivity HS-SCCH less mode, the RNC shall not include the *HS-PDSCH Code Change Grant* IE in the *HS-DSCH Information To Modify* IE.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information To Modify* IE, then the Node B shall use the indicated HARQ Preamble Mode in the new configuration as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the Node B shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the Node B shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information To Modify* IE, then the Node B shall use, in the new configuration, the indicated format in user plane frame structure for HS-DSCH channels [24] and MAC-hs [32].

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Physical Layer Category* IE in the *HS-DSCH Information To Modify* IE, the Node B shall use this information in the new configuration and may include the *HARQ Memory Partitioning* IE in the RADIO LINK RECONFIGURATION READY message. The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]

- [FDD - If the *MIMO Mode Indicator* IE is included in the *HS-DSCH Information To Modify* IE, then the Node B shall activate/deactivate the MIMO mode for the HS-DSCH Radio Link in accordance with the *MIMO Mode Indicator* IE.]

- [FDD - If the *MIMO Mode Indicator* IE is set to "Activate", then the Node B shall decide the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO N/M Ratio* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH Information To Modify* IE, then the Node B may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the Node B shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH Information To Modify* IE with value set to "not allowed", then the Node B shall not use 64 QAM for the HS-DSCH Radio Link.]

- [1.28Mcps TDD - For a multi-frequency cell, if the *HS-DSCH Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, and the Node B allows UE to use HSDPA resources distributed over multiple frequencies, then the Node B may modify the HS-SCCH Codes corresponding to the HS-DSCH over multiple frequencies, the Node B shall then report the codes which are used in the new configuration specified in the *HS-SCCH Specific Information Response LCR per UARFCN* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

HS-DSCH MAC-d Flow Addition/Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *HS-DSCH MAC-d Flows To Add* or *HS-DSCH MAC-d Flows To Delete* IEs, then the Node B shall use this information to add/delete the indicated HS-DSCH MAC-d flows. When an HS-DSCH MAC-d flow is deleted, all its associated Priority Queues shall also be removed.

If the RADIO LINK RECONFIGURATION PREPARE message includes an *HS-DSCH MAC-d Flows To Delete* IE requesting the deletion of all remaining HS-DSCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the HS-DSCH configuration from the Node B Communication Context and release the HS-PDSCH resources.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH MAC-d Flows To Add* IE, then:

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the RADIO LINK RECONFIGURATION READY message for every HS-DSCH MAC-d flow being added, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24]. If Node B Communication Context is configured to use the "Flexible MAC-d PDU Size" format for the HS-DSCH, then Node B shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer received in RADIO LINK RECONFIGURATION PREPARE message in the *HS-DSCH MAC-d Flows To Add* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH MAC-d Flows To Add* IE, the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* IE, then the Node B shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.

- The Node B may include the *HARQ Memory Partitioning* IE in the RADIO LINK RECONFIGURATION READY message. [FDD - The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]

- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.

- [1.28Mcps TDD - For a multi-frequency cell, if the Node B allows UE to use HSDPA resources distributed over multiple frequencies, the Node B may include the *HARQ Memory Partitioning per UARFCN* IE in the RADIO LINK RECONFIGURATION READY message.]

[FDD - E-DCH Setup:]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION PREPARE message:]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel information* IE in the *E-DCH FDD Information* IE, then the Node B shall use this information to optimise MAC-e scheduling decisions.]

- [FDD - If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the Node B shall use this information for the related resource allocation operation.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Reference Power Offset* IE, then the Node B may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Power Offset for Scheduling Info* IE, then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Serving E-DCH RL* IE indicating that the Serving E-DCH RL is in this Node B:]

 - [FDD - The Node B shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the corresponding RL and include these E-RNTI identifiers and the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION READY message.]

 - [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK RECONFIGURATION READY message for the initial grant for the serving E-DCH RL.]

 - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

 - [FDD - The Node B may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK RECONFIGURATION READY message for the serving E-DCH RL.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]

- [FDD - If in the RADIO LINK RECONFIGURATION PREPARE message the E-DCH Grant Type is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD - If in the RADIO LINK RECONFIGURATION PREPARE message the E-DCH Grant Type is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then

the Node B shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the Node B shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *SixteenQAM UL Operation Indicator* IE, the Node B shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]

 - [FDD - If SixteenQAM UL Operation is activated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [32]. If SixteenQAM UL Operation is deactivated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [32].]

[FDD - E-DCH Radio Link Handling:]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH RL Indication* IE in the *RL Information* IE:]

- [FDD - The Node B shall setup the E-DCH resources, as requested or as configured in the Node B communication context, on the Radio Links indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD - The Node B may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the Node B may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION READY message for every RL indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD - The Node B shall remove the E-DCH resources, if any, on the Radio Links, that are indicated by the *E-DCH RL Indication* set to "Non E-DCH".]

- [FDD - For each RL for which the *E-DCH RL Indication* IE is set to "E-DCH", and which has or can have a common generation of E-RGCH information with another RL (current or future) when the Node B would contain the E-DCH serving RL, the Node B shall include the *E-DCH RL Set ID* IE in the RADIO LINK RECONFIGURATION READY message. The value of the *E-DCH RL Set ID* IE shall allow the RNC to identify the E-DCH RLs that have or can have a common generation of E-RGCH information.]

[FDD - Serving E-DCH Radio Link Change:]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Serving E-DCH RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [FDD - If the old Serving E-DCH RL is in this Node B, the Node B shall de-allocate the E-AGCH resources of the old Serving E-DCH Radio Link at the activation of the new configuration.]

- [FDD - If the new Serving E-DCH RL is in this Node B:]

 - [FDD - The Node B may allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION READY message.]

 - [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK RECONFIGURATION READY message for the initial grant for the new serving E-DCH RL.]

 - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

 - [FDD - The Node B may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK RECONFIGURATION READY message for the new serving E-DCH RL.]

- [FDD - The Node B may include the *E-RGCH/E-HICH Channelisation Code* IE and/or the *E-HICH Signature Sequence* IE and/or the *E-RGCH Signature Sequence* IE or may alternatively include the *E-RGCH Release Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION READY message for every E-DCH Radio Links in the Node B.]

[FDD - E-DCH Modification:]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH FDD Information To Modify* IE, then:]

- [FDD - If the *E-DCH FDD Information To Modify* IE contains a *E-DCH MAC-d Flow Specific Information* IE which includes the *Allocation/Retention Priority* IE, the Node B shall apply the new Allocation/Retention Priority to this E-DCH in the new configuration according to Annex A.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum Number of Retransmissions for E-DCH* IE for an E-DCH MAC-d flow then the Node B shall use this information to report if the maximum number of retransmissions has been exceeded.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH HARQ Power Offset FDD* IE in the *E-DCH FDD Information To Modify* IE for an E-DCH MAC-d flow the Node B shall use this information for calculating the unquantised gain factor for an E-TFC ($\beta_{ed,j,uq}$)as defined in [10].]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains the E-DCH Grant Type and it is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the E-DCH Grant Type and it is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Logical Channel To Add* or *E-DCH Logical Channel To Delete* IEs, the Node B shall use this information to add/delete the indicated logical channels. When an logical channel is deleted, all its associated configuration data shall also removed.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Logical Channel To Modify* IE, the Node B shall use this information to modify the indicated logical channels:]

 [FDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Priority Indicator* IE, the Node B shall apply the values in the new configuration.]

- [FDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Information* IE, the Node B shall apply the values in the new configuration.]

- [FDD - If the *E-DCH Logical Channel To Modify* IE includes *MAC-es Guaranteed Bit Rate* IE, the Node B shall apply the values in the new configuration.]

- [FDD - If the *E-DCH Logical Channel To Modify* IE includes E-*DCH DDI Value* IE, the Node B shall apply the values in the new configuration.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information To Modify* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the Node B shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the Node B shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the Node B shall use this information for the related resource allocation operation.]

- [FDD - If the E-DCH serving RL is in this Node B, the Node B may choose to change the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission. In this case the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Reference Power Offset* IE, then the Node B may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Power Offset for Scheduling Info* IE, then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-e Reset Indicator* IE in the *E-DCH FDD Information To Modify* IE, then the Node B shall use this value to determine whether MAC-e Reset is performed in the UE for sending the HARQ Failure Indication.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *SixteenQAM UL Operation Indicator* IE in the *E-DCH FDD Information To Modify* IE, the Node B shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]

 - [FDD - If SixteenQAM UL Operation is activated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [32]. If SixteenQAM UL Operation is

deactivated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [32].]

[FDD - E-DCH MAC-d Flow Addition/Deletion:]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *E-DCH MAC-d Flows To Add* or E-DCH *MAC-d Flows To Delete* IEs, then the Node B shall use this information to add/delete the indicated E-DCH MAC-d flows. When an E-DCH MAC-d flow is deleted, all its associated configuration data shall also be removed.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining E-DCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the E-DCH configuration from the Node B Communication Context and release the E-DCH resources.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flows To Add* IE, then:]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH MAC-d Flows To Add* IE, the Node B shall use this information to optimise MAC-e scheduling decisions.]

[TDD - Intra-Node B Serving E-DCH Radio Link Change:]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Serving RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [TDD - In the new configuration the Node B shall de-allocate the E-DCH resources of the old Serving E-DCH Radio Link and allocate the E-DCH resources for the new Serving E-DCH Radio Link.]

- [TDD - The Node B shall allocate E-AGCH parameters [1.28Mcps TDD - and E-HICH parameters] corresponding to the E-DCH and include the *E-AGCH Specific Information Response TDD* IE [1.28Mcps TDD - and *E-HICH Specific Information Response TDD* IE] in the *E-DCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [TDD - If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.]

[TDD - E-PUCH Handling]:

[3.84Mcps TDD and 7.68Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-PUCH Information* IE, the Node B shall apply the parameters to the new configuration.]

[1.28Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-PUCH Information LCR* IE, the Node B shall apply the parameters to the new configuration.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-TFCS Information TDD* IE, the Node B shall apply the beta parameters to the new configuration.]

[3.84Mcps TDD - E-DCH Setup]:

[3.84Mcps TDD - the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE, *E-DCH TDD Information* IE and *E-DCH Non-scheduled Grant Information TDD* IE if there are to be non-scheduled grants.]

[1.28Mcps TDD - E-DCH Setup]:

[1.28Mcps TDD - the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information LCR* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE, *E-DCH TDD Information LCR* IE and *E-DCH Non-scheduled Grant Information LCR TDD* IE if there are to be non-scheduled grants.]

[7.68Mcps TDD - E-DCH Setup]:

[7.68Mcps TDD - the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE, *E-DCH TDD Information 7.68Mcps* IE and *E-DCH Non-scheduled Grant Information 7.68Mcps TDD* IE if there are to be non-scheduled grants.]

[TDD - E-DCH MAC-d Flow Addition/Deletion:]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *E-DCH MAC-d Flows To Add* or E-DCH *MAC-d Flows To Delete* IEs, then the Node B shall use this information to add/delete the indicated E-DCH MAC-d flows. When an E-DCH MAC-d flow is deleted, all its associated configuration data shall also be removed.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining E-DCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the E-DCH configuration from the Node B Communication Context and release the E-DCH resources.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining non-scheduled E-DCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the non-scheduled E-DCH configuration from the Node B Communication Context and release the non-scheduled E-DCH resources [1.28 Mcps TDD - and the related Signature Sequence of the Non-scheduled E-HICH].]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flows To Add* IE, then:]

- [TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH MAC-d Flows To Add* IE, the Node B shall use this information to optimise MAC-e scheduling decisions.]

[3.84Mcps TDD - E-DCH Non-scheduled allocations:]

[3.84Mcps TDD - If the *E-DCH Non-scheduled Grant Information TDD* IE is present in the RADIO LINK RECONFIGURATION PREPARE message the Node B shall assume that non-scheduled transmissions will take place according to the parameters in the information element.]

[1.28Mcps TDD - E-DCH Non-scheduled allocations:]

[1.28Mcps TDD - If the *E-DCH Non-scheduled Grant Information LCR TDD* IE is present in the RADIO LINK RECONFIGURATION PREPARE message the Node B shall assume that non-scheduled transmissions will take place according to the parameters in the information element.]

[7.68Mcps TDD - E-DCH Non-scheduled allocations:]

[7.68Mcps TDD - If the *E-DCH Non-scheduled Grant Information 7.68Mcps TDD* IE is present in the RADIO LINK RECONFIGURATION PREPARE message the Node B shall assume that non-scheduled transmissions will take place according to the parameters in the information element.]

[TDD - E-DCH Modification:]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the [3.84Mcps TDD - *E-DCH TDD Information* IE][1.28Mcps TDD - *E-DCH TDD Information LCR* IE][7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps* IE], then:]

- [3.84Mcps TDD - If the *E-DCH TDD Information* IE includes the *E-DCH TDD Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [1.28Mcps TDD - If the *E-DCH TDD Information LCR* IE includes the *E-DCH Physical Layer Category LCR* IE or *Extended E-DCH Physical Layer Category LCR* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [7.68Mcps TDD - If the *E-DCH TDD Information 7.68Mcps* IE includes the *E-DCH TDD Maximum Bitrate 7.68Mcps* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [TDD - If the [3.84Mcps TDD - *E-DCH TDD Information* IE] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps* IE] [1.28Mcps TDD - *E-DCH TDD Information LCR* IE] includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]

- [TDD - If the [3.84Mcps TDD - *E-DCH TDD Information* IE] [1.28Mcps TDD - *E-DCH TDD Information LCR* IE] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps* IE]includes the *E-DCH Power Offset for Scheduling Info* IE, then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH TDD Information To Modify* IE, then:]

- [TDD - If the *E-DCH TDD Information To Modify* IE contains a *E-DCH MAC-d Flow Specific Information* IE which includes the *Allocation/Retention Priority* IE, the Node B shall apply the new Allocation/Retention Priority to this E-DCH in the new configuration according to Annex A.]

- [TDD - If the *E-DCH TDD Information To Modify* IE message includes the *Maximum Number of Retransmissions for E-DCH* IE for an E-DCH MAC-d flow then the Node B shall use this information to report if the maximum number of retransmissions has been exceeded.]

- [1.28Mcps TDD - If the *E-DCH TDD Information To Modify* IE message includes the *E-DCH MAC-d Flow Retransmission Timer* IE for an E-DCH MAC-d flow then the Node B shall use this information to set the retransmission timer.]

- [TDD - If the *E-DCH TDD Information To Modify* IE message includes the *E-DCH HARQ Power Offset TDD* IE for an E-DCH MAC-d flow the Node B shall use this new power offset value.]

- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]

- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Grant Type* IE, the Node B shall treat the E-DCH MAC-d flow as Scheduled or Non-scheduled accordingly.]

- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Logical Channel To Add* or *E-DCH Logical Channel To Delete* IEs, the Node B shall use this information to add/delete the indicated logical channels. When a logical channel is deleted, all its associated configuration data shall also removed.]

- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Logical Channel To Modify* IE, the Node B shall use this information to modify the indicated logical channels:]

 - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Priority Indicator* IE, the Node B shall apply the values in the new configuration.]

 - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Information* IE, the Node B shall apply the values in the new configuration.]

 - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *MAC-es Guaranteed Bit Rate* IE, the Node B shall apply the values in the new configuration.]

 - [TDD - If the *E-DCH Logical Channel To Modify* IE includes E-*DCH DDI Value* IE, the Node B shall apply the values in the new configuration.]

- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *MAC-e Reset Indicator* IE in the *E-DCH TDD Information To Modify* IE, then the Node B shall use this value to determine whether MAC-e Reset is performed in the UE for sending the HARQ Failure Indication.]

[FDD - Phase Reference Handling]:

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Primary CPICH Usage For Channel Estimation* IE, the Node B shall assume that Primary CPICH usage for channel estimation has been reconfigured.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Secondary CPICH Information Change* IE, the Node B shall assume that Secondary CPICH usage for channel estimation has been reconfigured.]

[FDD - Fast Reconfiguration]:

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Fast Reconfiguration Mode* IE, the Node B shall, if supported, and if it is possible to base the synchronization of the reconfiguration on the detection of the change in the uplink scrambling code for this reconfiguration, include the *Fast ReconfigurationPermission* IE in the RADIO LINK RECONFIGURATION READY message.]

General

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Layer Address* IE and *Binding ID* IEs in the [TDD - *DSCHs To Modify*, *DSCHs To Add*, *USCHs To Modify*, *USCHs To Add*], *HS-DSCH Information*, *HS-DSCH Information To Modify*, *HS-DSCH MAC-d Flows To Add*, [TDD - *E-DCH MAC-d Flows to Add*, *E-DCH TDD Information to Modify* IE] [FDD - *RL Specific E-DCH Information* IE] or in the *RL Specific DCH Information* IEs, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included] or MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included] being added, or any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included] or MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included] being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

If the requested modifications are allowed by the Node B and the Node B has successfully reserved the required resources for the new configuration of the Radio Link(s), it shall respond to the CRNC with the RADIO LINK RECONFIGURATION READY message. When this procedure has been completed successfully there exists a Prepared Reconfiguration, as defined in subclause 3.1.

The Node B shall include in the RADIO LINK RECONFIGURATION READY message the *Transport Layer Address* IE and the *Binding ID* IE for any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included] or MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included] being added or any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included] or MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included] being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

In the case of a set of co-ordinated DCHs requiring a new transport bearer on the Iub interface, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included [FDD - if the *Transport Bearer Not Requested Indicator* IE is not included for this DCH,] only for one of the DCH in the set of co-ordinated DCHs.

[FDD - If the RADIO LINK RECONDIGURATION PREPARE message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer shall not be Established" for a DCH or an E-DCH MAC-d flow, then the Node B shall not establish a transport bearer for the concerned DCH or E-DCH MAC-d flow and shall include the *Transport Bearer Not Setup Indicator* IE for the DCH or E-DCH MAC-d flow in the RADIO LINK RECONFIGURATION READY message.]

[FDD - If the RADIO LINK RECONDIGURATION PREPARE message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for a DCH or an E-DCH MAC-d flow and:]

- [FDD - if the Node B establishes a transport bearer for the concerned DCH or E-DCH MAC-d flow, the Node B shall include in the RADIO LINK RECONFIGURATION READY message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the DCH or E-DCH MAC-d flow being established.]

- [FDD - if the Node B does not establish a transport bearer for the concerned DCH or E-DCH MAC-d flow, the Node B shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH or E-DCH MAC-d flow in the RADIO LINK RECONFIGURATION READY message.]

In the case of a Radio Link being combined with another Radio Link within the Node B, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included only for one of the combined Radio Links [FDD - if the *Transport Bearer Not Requested Indicator* IE is not included for this DCH].

[FDD - In the case of an E-DCH RL being combined with another E-DCH RL within the Node B, the *E-DCH FDD Information Response* IE shall be included only for one of the combined E-DCH RLs.]

8.3.2.3 Unsuccessful Operation

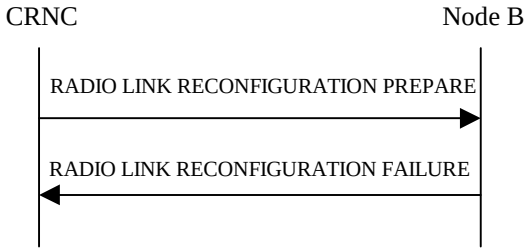


Figure 31: Synchronised Radio Link Reconfiguration Preparation procedure, Unsuccessful Operation

If the Node B cannot reserve the necessary resources for all the new DCHs of one set of co-ordinated DCHs requested to be added, it shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed.

If the requested Synchronised Radio Link Reconfiguration Preparation procedure fails for one or more RLs, the Node B shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC, indicating the reason for failure.

Typical cause values are as follows:

Radio Network Layer Cause

- UL SF not supported
- DL SF not supported
- Downlink Shared Channel Type not supported
- Uplink Shared Channel Type not supported
- CM not supported
- Number of DL codes not supported
- Number of UL codes not supported
- RL Timing Adjustment not supported
- F-DPCH not supported
- [FDD - Continuous Packet Connectivity DTX-DRX operation not available]
- [FDD - Continuous Packet Connectivity UE DTX Cycle not available]
- [FDD - MIMO not available].

Transport Layer Cause

- Transport Resources Unavailable

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

8.3.2.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD - or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"], the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as failed and shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes a *DCHs To Modify* IE or *DCHs To Add* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCHs To Modify* IE or *DCHs To Add* IE do not have the same *Transmission Time Interval* IE in the *Semi-Static Transport Format Information* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the *RL Information* IE includes the *DL Reference Power* IE, but the power balancing is not active in the indicated RL(s), the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the Node B shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the Node B Communication Context set to "Common" in the existing RL(s) but the RADIO LINK RECONFIGURATION PREPARE message IE includes more than one *DL Reference Power* IE, the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the Node B shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

If the RADIO LINK RECONFIGURATION PREPARE message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for any Transport Channel or HS-DSCH MAC-d flow being added, or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE, and not both are present for a transport bearer intended to be established, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message is to modify UE channel estimation information for an existing RL and the modification is not allowed according to [10] subclause 4.3.2.1, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE or *HS-DSCH MAC-d Flows To Delete* IE in addition to the *HS-DSCH Information* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE, *HS-DSCH MAC-d Flows To Delete* IE or *HS-PDSCH RL ID* IE and the Serving HS-DSCH Radio Link is not in the Node B, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Information* IE and does not include the *HS-PDSCH RL-ID* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Information To Modify* IE deleting the last remaining Priority Queue of an HS-DSCH MAC-d Flow, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-PDSCH RL-ID* IE indicating a Radio Link not existing in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[TDD - If multiple radio links exist within the Node B Communication Context and the RADIO LINK RECONFIGURATION PREPARE message does not include a *RL ID* IE within each *UL DPCH To Add Per RL* IE, *DL DPCH To Add Per RL* IE, *UL DPCH To Modify Per RL* IE, and *DL DPCH To Modify Per RL* IE that is present in the message, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *HS-DSCH Information* IE, *HS-DSCH Information To Modify* IE, or *HS-DSCH MAC-d Flows To Add* IE and if in the new configuration the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned Node B Communication Context is configured to use "Indexed MAC-d PDU Size" for an HS-DSCH but there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use Maximum MAC-d PDU Size Extended, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned Node B Communication Context is configured to use "Flexible MAC-d PDU Size" for an HS-DSCH but there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use MAC-d PDU Size Index, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains the *HS-DSCH Information* IE and if the *Measurement Power Offset* IE is not present, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message includes *HS-DSCH Information* IE and the HS-DSCH is already configured in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains the *F-DPCH Information* IE and the *DL DPCH Information* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned the Node B Communication Context is configured to use DPCH in the downlink in the old configuration and the RADIO LINK RECONFIGURATION PREPARE message includes the *DL DPCH Power Information* IE , then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to use F-DPCH in the downlink in the old configuration and the RADIO LINK RECONFIGURATION PREPARE message includes at least one but not all of the *TFCS* IE, *DL DPCH Slot Format* IE, *TFCI Signalling Mode* IE, *Multiplexing Position* IE, *Limited Power Increase* IE and *DL DPCH Power Information* IE in the *DL DPCH Information* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to use F-DPCH in the downlink in the old configuration, if the RADIO LINK RECONFIGURATION PREPARE message includes the *DL DPCH Information* IE, if at least one Transmission Gap Pattern Sequence is configured with an SF/2 downlink compressed mode method in the new Compressed Mode Configuration and if the RADIO LINK RECONFIGURATION PREPARE message does not include the *Transmission Gap Pattern Sequence Code Information* IE for each DL Channelisation Code, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION PREPARE message, but the *E-DPCH Information* IE is not present or if any of the *Maximum Set of E-DPDCHs* IE, *Puncture Limit* IE, *E-TFCS Information* IE, *E-TTI* IE or *E-DPCCH Power Offset* IE or *HS-DSCH Configured Indicator* IE are not present in the *E-DPCH Information* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Primary CPICH Usage For Channel Estimation* IE and/or *Secondary CPICH Information Change* IE and if in the new configuration Node B shall assume that the UE is not using the Primary CPICH for channel estimation nor the Secondary CPICH, Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes one of the *Not Used* IEs, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH RL Indication* IE set to "E-DCH", but no *E-DCH FDD Information* IE, and the Node B Communication Context is not configured for E-DCH, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH FDD Information* IE but no *E-DCH RL Indication* IE set to "E-DCH", then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message contains the *HS-PDSCH RL ID* IE and/or the *Serving E-DCH RL* IE and if both HS-DSCH and E-DCH are configured in the new configuration but the Serving HS-DSCH

Radio Link and the Serving E-DCH Radio Link are not in the same cell then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains the *HS-PDSCH RL ID* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as 'HS-DSCH not configured' then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *E-DCH FDD Information To Modify* IE, *E-DCH MAC-d Flows To Add* IE or *E-DCH MAC-d Flows To Delete* IE in addition to the *E-DCH FDD Information* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *E-DCH FDD Information To Modify* IE, *E-DCH MAC-d Flows To Add* IE, *E-DCH MAC-d Flows To Delete* IE and the Node B Communication Context is not configured for E-DCH, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH FDD Information To Modify* IE deleting the last remaining E-DCH Logical Channel of an E-DCH MAC-d Flow, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes *E-DCH FDD Information* IE and the E-DCH is already configured in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[TDD - if the radio link was not previously configured to support E-DCH, then if the RADIO LINK RECONFIGURATION PREPARE message includes one of the following E-DCH information elements then it shall contain all of them otherwise the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.: *E-DCH Serving RL* IE, [3.84Mcps TDD and 7.68Mcps TDD - *E-PUCH Information* IE, *E-TFCS Information TDD* IE], [1.28Mcps TDD - *E-PUCH Information LCR* IE, *E-TFCS Information TDD* IE], *E-DCH MAC-d Flows to Add* IE, and [3.84Mcps TDD - *E-DCH TDD Information* IE], [1.28Mcps TDD - *E-DCH TDD Information LCR* IE] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps* IE].]

[FDD - If the *Fast Reconfiguration* IE is included in the RADIO LINK RECONFIGURATION PREPARE message and the *UL Scrambling Code* IE does not indicate an uplink scrambling code different from the currently used uplink scrambling code the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE in addition to the *Continuous Packet Connectivity DTX-DRX Information* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only" but no *Transport Format Set* IE for the uplink for this DCH and the Node B had ignored the configuration of Transport Format Set for uplink, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only" but no *Transport Format Set* IE for the downlink for this DCH and the Node B had ignored the configuration of Transport Format Set for downlink, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains the *Transport Bearer Not Requested Indicator* IE for a DCH but does not contain the corresponding *DCH ID* IE and the *Unidirectional DCH indicator* IE set to "Uplink DCH only" for the DCH in *DCH Information To Add* IE, the Node B shall reject the procedure using the the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to apply UL DPCCH Slot Format 4 but is not configured to use F-DPCH, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to apply UL DPCCH Slot Format 0 or 2 and execute Continuous Packet Connectivity DTX-DRX operation, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to apply the "Closed loop mode 1" and if the concerned Node B Communication Context is not configured to apply UL DPCCH Slot Format 2 or 3, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to apply MIMO or allowed to apply 64 QAM but is not configured to use flexible MAC-d PDU Size, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

8.3.3 Synchronised Radio Link Reconfiguration Commit

8.3.3.1 General

This procedure is used to order the Node B to switch to the new configuration for the Radio Link(s) within the Node B, previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure.

The message shall use the Communication Control Port assigned for this Node B Communication Context.

8.3.3.2 Successful Operation



Figure 32: Synchronised Radio Link Reconfiguration Commit procedure, Successful Operation

The Node B shall switch to the new configuration previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure

- [TDD - at the next coming CFN with a value equal to the value requested by the CRNC in the CFN IE (see ref.[17] subclause 9.4) when receiving the RADIO LINK RECONFIGURATION COMMIT message from the CRNC.]

- [FDD - if the Fast Reconfiguration IE is not included in the RADIO LINK RECONFIGURATION COMMIT message at the next coming CFN with a value equal to the value requested by the CRNC in the *CFN* IE (see ref.[17] subclause 9.4) when receiving the RADIO LINK RECONFIGURATION COMMIT message from the CRNC.]

- [FDD - if the *Fast Reconfiguration* IE is included in the RADIO LINK RECONFIGURATION COMMIT message as soon as the Node B detects that the UE uses the new configuration in the uplink (e.g. the Node B detects that the UE uses the new scrambling code used for the uplink by sending the RADIO LINK RESTORATION message). In order to limit the period for the detection in the Node B the CFN in the RADIO LINK RECONFIGURATION COMMIT message indicates the earliest possible time instant at which the UE might use the new configuration.]

[FDD - If the *Active Pattern Sequence Information* IE is included in the RADIO LINK RECONFIGURATION COMMIT message, the *CM Configuration Change CFN* IE in the *Active Pattern Sequence Information* IE shall be ignored by the Node B.]

[FDD - If the *Active Pattern Sequence Information* IE is not included in the RADIO LINK RECONFIGURATION COMMIT message and a new Compressed Mode Configuration exists in the prepared configuration, the Node B shall behave as if an *Active Pattern Sequence Information* IE with an empty *Transmission Gap Pattern Sequence Status* IE was included.]

When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

In the case of a Transport Channel or MAC-d flow modification for which a new transport bearer was requested and established, the switch to the new transport bearer shall also take place at the configuration switching point (defined above). The detailed frame protocol handling during transport bearer replacement is described in [16], subclause 5.10.1 and in [24], subclauses 5.8.2 and 5.8.3.

In the case of a signalling bearer re-arrangement, the new Communication Control Port shall be used once the Node B has received the RADIO LINK RECONFIGURATION COMMIT message via the old Communication Control Port.

[FDD - If the RADIO LINK RECONFIGURATION COMMIT includes the *Active Pattern Sequence Information* IE, the Node B shall deactivate all the ongoing Transmission Gap Pattern Sequences at the configuration switching point (defined above). From that moment on, all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE repetitions shall be started when the indicated *TGCFN* IE elapses. The *CFN* IE and *TGCFN* IE for each sequence refer to the next coming CFN with that value. If the values of the *CFN* IE and the *TGCFN* IE are equal, the concerned Transmission Gap Pattern Sequence shall be started immediately at the CFN with a value equal to the value received in the *CFN* IE.]

[FDD - If the RADIO LINK RECONFIGURATION COMMIT message includes the *Active Pattern Sequence Information* IE and the concerned Node B Communication Context is configured to use F-DPCH in the downlink, the Node B shall ignore, when activating the Transmission Gap Pattern Sequence(s), the downlink compressed mode method information, if existing, for the concerned Transmission Gap Pattern Sequence(s) in the Compressed Mode Configuration.]

8.3.3.3 Abnormal Conditions

If a new transport bearer is required for the new reconfiguration and it is not available at the configuration switching point (defined above), the Node B shall initiate the Radio Link Failure procedure.

[FDD - If the *Fast Reconfiguration* IE is included in the RADIO LINK RECONFIGURATION COMMIT message and the Node B did not include the *Fast ReconfigurationPermission* IE in the RADIO LINK RECONFIGURATION READY message, the Node B shall initiate the Radio Link Failure procedure.]

8.3.4 Synchronised Radio Link Reconfiguration Cancellation

8.3.4.1 General

This procedure is used to order the Node B to release the new configuration for the Radio Link(s) within the Node B, previously prepared by the Synchronised Radio Link Preparation Reconfiguration procedure.

The message shall use the Communication Control Port assigned for this Node B Communication Context.

8.3.4.2 Successful Operation



Figure 33:Synchronised Radio Link Reconfiguration Cancellation procedure, Successful Operation

When receiving the RADIO LINK RECONFIGURATION CANCEL message from the CRNC, the Node B shall release the new configuration ([FDD - including the new Transmission Gap Pattern Sequence parameters (if existing)]) previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure and continue using the old configuration. When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

8.3.4.3 Abnormal Conditions

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8.3.5 Unsynchronised Radio Link Reconfiguration

8.3.5.1 General

The Unsynchronised Radio Link Reconfiguration procedure is used to reconfigure Radio Link(s) related to one UE-UTRAN connection within a Node B.

The Unsynchronised Radio Link Reconfiguration procedure is used when there is no need to synchronise the time of the switching from the old to the new configuration in one Node B used for a UE-UTRAN connection with any other Node B also used for the UE–UTRAN connection.

The Unsynchronised Radio Link Reconfiguration procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.5.2 Successful Operation

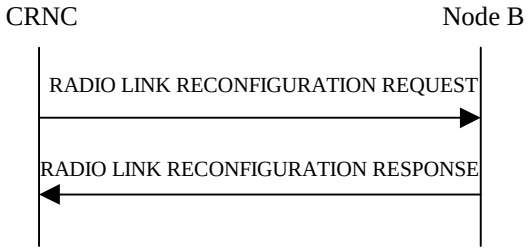


Figure 34: Unsynchronised Radio Link Reconfiguration Procedure, Successful Operation

The Unsynchronised Radio Link Reconfiguration procedure is initiated by the CRNC by sending the RADIO LINK RECONFIGURATION REQUEST message to the Node B. The message shall use the Communication Control Port assigned for this Node B Communication Context.

Upon reception, the Node B shall modify the configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The Node B shall prioritise resource allocation for the RL(s) to be modified according to Annex A.

DCH Modification:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCHs To Modify* IE then the Node B shall treat them each as follows:

- If the *DCHs To Modify* IE includes the *Frame Handling Priority* IE, the Node B should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the Node B once the new configuration has been activated.

- If the *DCHs To Modify* IE includes the *TNL QoS* IE for a DCH or a set of co-ordinated DCHs to be modified and if ALCAP is not used, the Node B may store this information for this DCH in the new configuration. The *TNL QoS* IE may be used to determine the transport bearer characteristics to apply for the uplink between the Node B and the CRNC for the related DCH or set of co-ordinated DCHs.

- If the *DCHs To Modify* IE includes the *Transport Format Set* IE for the UL, the Node B shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.

- If the *DCHs To Modify* IE includes the *Transport Format Set* IE for the DL, the Node B shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.

- If the *DCHs To Modify* IE includes the *Allocation/Retention Priority* IE for a DCH, the Node B shall apply the new Allocation/Retention Priority to this DCH in the new configuration according to Annex A.

- If the *DCHs To Modify* IE includes multiple *DCH Specific Info* IEs, then the Node B shall treat the DCHs in the *DCHs To Modify* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

- [FDD - If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to "Uplink DCH only", the Node B shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.]

- [FDD - If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to "Downlink DCH only", the Node B shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.]

- If the *DCHs To Modify* IE includes the *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs, the Node B shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE includes the *ToAWS* IE for a DCH or a set of co-ordinated DCHs, the Node B shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs, the Node B shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- [TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the DL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Downlink of this DCH in the new configuration.]

- [TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the UL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Uplink of this DCH in the new configuration.]

DCH Addition:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCH To Add* IE, the Node B shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCHs in the new configuration. In particular:

- If a *DCHs To Add* IE includes multiple *DCH Specific Info* IEs for a DCH to be added, the Node B shall treat the DCHs in the *DCHs To Add* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only", the Node B shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.

- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only", the Node B shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.

- [FDD - For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Node B shall use the Transport channel BER from that DCHas the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE [16]. If the *QE-Selector* IE is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [16].]

- For a set of co-ordinated DCHs, the Node B shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" as the QE in the UL data frames [16]. [FDD - If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE [16]. If all DCHs have the *QE-Selector* IE set to "non-selected", the Physical channel BER shall be used for the QE [16].]

- The Node B should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the Node B once the new configuration has been activated.

- If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the Node B may store this information for this DCH in the new configuration. The *TNL QoS* IE may be used to determine the transport bearer characteristics to apply for the uplink between the Node B and the CRNC for the related DCH or set of co-ordinated DCHs.

- The Node B shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- The Node B shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Startpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- The Node B shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Endpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- [TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the DL of a DCH to be added, the Node B shall apply the new CCTrCH ID in the downlink of this DCH in the new configuration.]

- [TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the UL of a DCH to be added, the Node B shall apply the new CCTrCH ID in the Uplink of this DCH in the new configuration.]

DCH Deletion:

If the RADIO LINK RECONFIGURATION REQUEST message includes any DCH to be deleted from the Radio Link(s), the Node B shall not include this DCH in the new configuration.

If all of the DCHs belonging to a set of co-ordinated DCHs are requested to be deleted, the Node B shall not include this set of co-ordinated DCHs in the new configuration.

[FDD - Physical Channel Modification]:

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *UL DPCH Information* IE, then the Node B shall apply the parameters to the new configuration as follows:]

- [FDD - If the *UL DPCH Information* IE includes the *TFCS* IE for the UL, the Node B shall apply the new TFCS in the Uplink of the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes a *DL DPCH Information* IE, then the Node B shall apply the parameters to the new configuration as follows:]

- [FDD - If the *DL DPCH Information* IE includes on the *TFCS* IE for the DL, the Node B shall apply the new TFCS in the Downlink of the new configuration.]

- [FDD - If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE, the Node B shall use the information when building TFCIs in the new configuration.

- [FDD - If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Used", the Node B shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]

- [FDD - If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Not Used", the Node B shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the Node B shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode Configuration. Any Transmission Gap Pattern Sequences already existing in the previous Compressed Mode Configuration are replaced by the new sequences once the new Compressed Mode Configuration has been activated. This new Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or Node B Communication Context is deleted.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information* IE, then:]

- [FDD - The Node B shall configure the concerned Node B Communication Context for DTX operation according to [10].]

- [FDD - If *DRX Information* IE is included in the *Continuous Packet Connectivity DTX-DRX Information* IE, then the Node B shall configure the concerned Node B Communication Context for DRX operation according to [10].]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then:]

- [FDD - If the *UE DTX DRX Offset* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the Node B shall apply the indicated Offset in *UE DTX DRX Cycle* IE in the new configuration.]

- [FDD - If the *Enabling Delay* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the Node B shall use this value to determine the beginning of uplink transmission in the new configuration according to [10] .]

- [FDD - If the *DTX Information To Modify* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the Node B shall use this information to modify the indicated DTX Information parameter in the new configuration.]

- [FDD - If the *DRX Information To Modify* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the Node B shall use this information to modify the indicated DRX Information in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity HS-SCCH less Information* IE, then:]

- [FDD - The Node B shall configure the Serving HS-DSCH Radio Link for Continuous Packet Connectivity HS-SCCH less operation in the new configuration according to [10].]

- [FDD - The Node B shall allocate the HS-PDSCH codes needed for HS-SCCH less operation and include the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - If at least one of *HS-PDSCH Second Code Support* IE is set to "True", then the Node B shall include *HS-PDSCH Second Code Index* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE, then the Node B shall deactivate the Continuous Packet Connectivity HS-SCCH less operation for the HS-DSCH Radio Link.]

[FDD - E-DPCH Handling]:

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DPCH Information* IE which contains the *E-TFCS Information* IE, the Node B shall use the *E-TFCS Information* IE for the E-DCH when reserving resources for the uplink of the new configuration. The Node B shall apply the new TFCS in the uplink of the new configuration. If the *E-TFCS Information* IE contains the *E-DCH Minimum Set E-TFCI* IE the Node B shall use the value for the related resource allocation operation.]

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DPDCH Power Interpolation* IE, the Node B shall use the value to determine the applicable E-DPDCH power formula defined in [10]. If the *E-DPDCH Power Interpolation* IE is not present, the Node B shall use the E-DPDCH power extrapolation formula defined in [10] if the *E-DCH FDD Information* IE is included in the RADIO LINK RECONFIGURATION REQUEST message.]

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-TFCI Boost Information* IE, the Node B shall use the information according to [10]. If the *E-TFCI Boost Information* IE is not present, the Node B shall use the E-TFCI BetaEC Boost value "127" in the algorithm defined in [10] if the *E-DCH FDD Information* IE is included in the RADIO LINK RECONFIGURATION PREPARE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *E-DPCCH Power Offset* IE, the Node B shall use the value when the new configuration is being used.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *E-RGCH 2-Index-Step* IE, the Node B shall use the value when the new configuration is being used.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *E-RGCH 3-Index-Step* IE, the Node B shall use the value when the new configuration is being used.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *HARQ Info for E-DCH* IE, the Node B shall use the value when the new configuration is being used.]

[TDD - UL/DL CCTrCH Modification]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH To Modify* IE or *DL CCTrCH To Modify* IE in the Radio Link(s), the Node B shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message.]

[TDD - If the *UL CCTrCH To Modify* IE or *DL CCTrCH To Modify* IE includes *TFCS* IE and/or *Puncture Limit* IE, the Node B shall apply these as the new values, otherwise the old values specified for this CCTrCH are still applicable.]

[1.28Mcps TDD - If the *UL CCTrCH To Modify* IE includes *UL SIR Target* IE, the Node B shall apply this value as the new configuration and use it for the UL inner loop power control according [19] and [21].]

[TDD - UL/DL CCTrCH Deletion]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH To Delete* IE or *DL CCTrCH To Delete* IE, the Node B shall not include this CCTrCH in the new configuration.]

DL Power Control:

- [FDD - If the *Radio Link Information* IE includes the *DL Reference Power* IE and the power balancing is active, the Node B shall update the reference power of the power balancing in the indicated RL(s), if updating of power balancing parameters by the RADIO LINK RECONFIGURATION REQUEST message is supported, using the *DL Reference Power* IE in the RADIO LINK RECONFIGURATION REQUEST message. The updated reference power shall be used from the next adjustment period.]

[FDD - If updating of power balancing parameters by the RADIO LINK RECONFIGURATION REQUEST message is supported by the Node B, the Node B shall include the *DL Power Balancing Updated Indicator* IE in the *RL Information Response* IE for each affected RL in the RADIO LINK RECONFIGURATION RESPONSE message.]

RL Information:

If the RADIO LINK RECONFIGURATION REQUEST message includes the *RL Information* IE, the Node B shall treat it as follows:

- [FDD - If the *RL Information* IE includes the *Maximum DL Power* IE, the Node B shall apply this value to the new configuration and not transmit with a higher power on any Downlink DPCH or on the F-DPCH of the Radio Link once the new configuration is being used. During compressed mode, the δP_{curr}, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

- [FDD - If the *RL Information* IE includes the *Minimum DL Power* IE, the Node B shall apply this value to the new configuration and never transmit with a lower power on any Downlink Channelisation Code or on the F-DPCH of the Radio Link once the new configuration is being used.]

- [3.84 Mcps TDD and 7.68Mcps TDD - If the *CCTrCH Maximum DL Transmission Power* IE and/or the *CCTrCH Minimum DL Transmission Power* IE are included, the Node B shall apply the values in the new configuration for this DCH type CCTrCH, if the *RL Information* IE includes *Maximum Downlink Power* and/or the *Minimum Downlink Power* IEs, the Node B shall apply the values in the new configuration for all other DCH type CCTrCHs.]

- [3.84 Mcps TDD and 7.68Mcps TDD - The maximum power and minimum power for a DSCH type CCTrCH to be modified, shall be determined as follows:

 - If the DSCH type CCTrCH is paired with an uplink CCTrCH(s) for inner loop power control, the minimum and maximum power for each PDSCH is determined in the same way as described above for DCH type CCTrCHs.

 - If the DSCH type CCTrCH is not paired with an uplink CCTrCH(s) for inner loop power control, the PDSCH transmission power is DSCH Data Frame Protocol signalled [24], with the maximum value determined in the

same way as described above for DCH type CCTrCHs. The minimum power, however, is subject to control by the CRNC via the frame protocol].

- [1.28 Mcps TDD - If *Maximum DL Pow*er IE and/or *Minimum DL Power* IE are included within *DL Timeslot Information LCR* IE, the Node B shall apply the values in the new configuration for this timeslot within a DCH type CCTrCH, if the *RL Information* IE includes *Maximum Downlink Power* and/or the *Minimum Downlink Power* IEs, the Node B shall apply the values in the new configuration for all other timeslots.]

- [1.28 Mcps TDD - If the *CCTrCH Maximum DL Transmission Power* IE and/or the *CCTrCH Minimum DL Transmission Power* IE are included, the Node B shall apply the values in the new configuration for this DSCH type CCTrCH, if the *RL Information* IE includes the *Maximum Downlink Power* and/or the *Minimum Downlink Power* IEs, the Node B shall apply the values in the new configuration for other timeslots.]

- [FDD - If the concerned Node B Communication Context is configured to use DPCH in the downlink and if the *RL Information* IE contains the *Transmission Gap Pattern Sequence Code Information* IE in the *DL Code Information* IE for any of the allocated DL Channelisation Codes, the Node B shall apply the alternate scrambling code as indicated whenever the downlink compressed mode method SF/2 is active in the new configuration.]

- [1.28Mcps TDD - If the *RL Information* IE contains the *Uplink Synchronisation Parameters LCR* IE, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize* IE and *Uplink Synchronisation Frequency* IE when evaluating the timing of the UL synchronisation.]

- [FDD - If the *RL Information* IE contains the *F-DPCH Slot Format* IE and if the Node B Communication Context is configured to use F-DPCH in the downlink, then the Node B shall use this information to configure the F-DPCH slot format of each RL according to [7].]

Signalling Bearer Re-arrangement:

If the RADIO LINK RECONFIGURATION REQUEST message includes the *Signalling Bearer Request Indicator* IE, the Node B shall allocate a new Communication Control Port for the control of the Node B Communication Context and include the *Target Communication Control Port ID* IE in the RADIO LINK RECONFIGURATION RESPONSE message.

HS-DSCH Setup:

If the *HS-DSCH Information* IE is present in the RADIO LINK RECONFIGURATION REQUEST message, then:

- The Node B shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.

- The Node B shall include the *HARQ Memory Partitioning* IE in the [FDD - *HS-DSCH FDD Information Response* IE] [TDD - *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION RESPONSE message. [FDD - The *HARQ Memory Partitioning* IE shall either contain the *HARQ Memory Partitioning Information Extension For MIMO* IE or the *Number of Processes* IE set to a value higher than "8", if the *MIMO Activation Indicator* IE is included in the *HS-DSCH Information* IE.]

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the [FDD - *HS-DSCH FDD Information Response* IE] [TDD - *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION RESPONSE message for every HS-DSCH MAC-d flow being established, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane

as described in [24]. If RADIO LINK RECONFIGURATION REQUESTmessage includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to "Flexible MAC-d PDU Size", then Node B shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer received in RADIO LINK RECONFIGURATION REQUEST in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the Node B may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Measurement Power Offset* IE in the *HS-DSCH Information* IE, then the Node B shall use the measurement power offset as described in ref [10], subclause 6A.2.]

- [FDD - The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [TDD - The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] [7.68Mcps TDD - *HS-SCCH Specific Information Response 7.68Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated HARQ Preamble Mode as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the Node B shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the Node B shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-SICH SIR Target* IE in the *HS-DSCH Information* IE, the Node B shall use this value to determine the HS-SICH SIR Target. The *HS-SICH SIR Target* IE indicates the received UL SIR target of HS-SICH NACK for this UE.]

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated format in user plane frame structure for HS-DSCH channels [24] and MAC-hs [32].

- [FDD - If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.]

- [FDD - If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the Node B shall activate the MIMO mode for the HS-DSCH Radio Link and the Node B shall decide the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO N/M Ratio* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the Node B may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the Node B shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE with value set to "not allowed", then the Node B shall not use 64 QAM for the HS-DSCH Radio Link.]

- [1.28Mcps TDD - For a multi-frequency cell, if the RADIO LINK RECONFIGURATION REQUEST message includes the *Number of Supported Carriers* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE, the Node B shall use this information to allocate HSDPA resources over multiple frequencies for UE.]

- [1.28Mcps TDD - For a multi-frequency cell, if the Node B allows UE to use HSDPA resources distributed over multiple frequencies, the Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH over multiple frequencies and include the *HS-SCCH Specific Information Response LCR per UARFCN* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [1.28Mcps TDD - For a multi-frequency cell, if the Node B allows UE to use HSDPA resources distributed over multiple frequencies, the Node B shall include the *HARQ Memory Partitioning per UARFCN* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [1.28Mcps TDD - For a multi-frequency cell, if the Node B allows UE to use HSDPA resources distributed over multiple frequencies, the Node B may indicate the number of multiple frequencies actually used by the UE and include the *Multi-Carrier number* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

Intra-Node B Serving HS-DSCH Radio Link Change:

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-PDSCH RL ID* IE, this indicates the new Serving HS-DSCH Radio Link:

- The Node B shall release the HS-PDSCH resources on the old Serving HS-DSCH Radio Link and setup the HS-PDSCH resources on the new Serving HS-DSCH Radio Link.

- The Node B may include the *HARQ Memory Partitioning* IE in the [FDD - *HS-DSCH FDD Information Response* IE] [TDD - *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION RESPONSE message. [FDD - The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]

- [FDD - The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [TDD - The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] [7.68Mcps TDD - *HS-SCCH Specific Information Response 7.68Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.]

- If a reset of the MAC-hs is not required the Node B shall include the *MAC-hs Reset Indicator* IE in the RADIO LINK RECONFIGURATION RESPONSE message.

HS-DSCH Modification:

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Information To ModifyUnsynchronised* IE and if the Serving HS-DSCH Radio Link is in the Node B, then:

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE for every HS-DSCH MAC-d flow being modified for which the establishment of one or several new Priority Queues was requested, if the Node B allows the CRNC to start the transmission of MAC-d PDUs for the Priority Queue(s) being established before the Node B has allocated capacity on user plane as described in [24]. If Node B Communication Context is configured to use the "Flexible MAC-d PDU Size", then Node B shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer for the Priority Queue of Node B Communication Context.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH Information To ModifyUnsynchronised* IE, the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH Information To ModifyUnsynchronised* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *ACK Power Offset* IE, the *NACK Power Offset* IE or the *CQI Power Offset* IE in the *HS-DSCH Information To ModifyUnsynchronised* IE, then the Node B shall use the indicated ACK Power Offset, the NACK Power Offset or the CQI Power Offset in the new configuration.]

- [FDD - If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH Information To ModifyUnsynchronised* IE, the Node B may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *TDD ACK NACK Power Offset* IE in the *HS-DSCH Information To ModifyUnsynchronised* IE, the Node B shall use the indicated power offset in the new configuration.]

- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the HS-SICH SIR Target IE in the *HS-DSCH Information To Modify Unsynchronised* IE, the Node B shall use this value to the SIR Target in the new configuration. The *HS-SICH SIR Target* IE indicates the received UL SIR target of HS-SICH NACK for this UE.]

- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the HS-SICH TPC step size IE in the *HS-DSCH Information To Modify Unsynchronised* IE, the Node B shall use this value to the HS-SICH TPC step size in the new configuration.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information To ModifyUnsynchronised* IE, then the Node B shall use the indicated HARQ Preamble Mode in the new configuration as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the Node B shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the Node B shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Physical Layer Category* IE in the *HS-DSCH Information To Modify Unsynchronised* IE, the Node B shall use this information in the new configuration and may include the *HARQ Memory Partitioning* IE in the RADIO LINK RECONFIGURATION RESPONSE message. The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]

- [FDD - If the *MIMO Mode Indicator* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE, then the Node B shall activate/deactivate the MIMO mode for the HS-DSCH Radio Link in accordance with the *MIMO Mode Indicator* IE.]

 - [FDD - If the *MIMO Mode Indicator* IE is set to "Activate", then the Node B shall decide the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO N/M Ratio* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE, then the Node B may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the Node B shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE with value set to "not allowed", then the Node B shall not use 64 QAM for the HS-DSCH Radio Link.]

HS-DSCH MAC-d Flow Addition/Deletion:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *HS-DSCH MAC-d Flows To Add* or *HS-DSCH MAC-d Flows To Delete* IEs and if the Serving HS-DSCH Radio Link is in the Node B, then the Node B shall use this information to add/delete the indicated HS-DSCH MAC-d flows on the Serving HS-DSCH Radio Link. When an HS-DSCH MAC-d flow is deleted, all its associated Priority Queues shall also be removed.

If the RADIO LINK RECONFIGURATION REQUEST message includes an *HS-DSCH MAC-d Flows To Delete* IE requesting the deletion of all remaining HS-DSCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the HS-DSCH configuration from the Node B Communication Context and release any existing HS-PDSCH resources.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH MAC-d Flows To Add* IE and if the Serving HS-DSCH Radio Link is in the Node B, then:

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the RADIO LINK RECONFIGURATION RESPONSE message for every HS-DSCH MAC-d flow being added, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24]. If Node B Communication Context is configured to use the "Flexible MAC-d PDU Size" format for the HS-DSCH, then Node B shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer received in RADIO LINK RECONFIGURATION REQUEST message in the *HS-DSCH MAC-d Flows To Add* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH MAC-d Flows To Add* IE, the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* IE, then the Node B shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.

- [FDD - If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.]

[FDD - E-DCH Setup:]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION REQUEST message:]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel information* IE in the *E-DCH MAC-d Flows Information* IE, then the Node B shall use this information to optimise MAC-e scheduling decisions.]

- [FDD - If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the Node B shall use this information for the related resource allocation operation.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Reference Power Offset* IE, then the Node B may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Power Offset for Scheduling Info* IE, then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Serving E-DCH RL* IE:]

 - [FDD - the Node B shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the corresponding RL and include these E-RNTI identifiers and the channelisation code of the corresponding

E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK RECONFIGURATION RESPONSE message for the initial grant for the serving E-DCH RL.]

- [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - The Node B may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK RECONFIGURATION RESPONSE message for the serving E-DCH RL.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]

- [FDD - If in the RADIO LINK RECONFIGURATION REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD - If in the RADIO LINK RECONFIGURATION REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the Node B shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the Node B shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DPCH Information* IE which contains the *HS-DSCH Configured Indicator* IE and/or the *Maximum Set of E-DPDCHs* IE, and/or the *Puncture Limit* IE and/or the *E-TTI* IE, the Node B shall use and apply the value(s) in the new configuration.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *SixteenQAM UL Operation Indicator* IE, the Node B shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]

- [FDD - If SixteenQAM UL Operation is activated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [32]. If SixteenQAM UL Operation is deactivated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [32].]

[FDD - E-DCH Radio Link Handling:]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH RL Indication* IE in the *RL Information* IE:]

- [FDD - The Node B shall setup the E-DCH resources, as requested or as configured in the Node B communication context, on the Radio Links indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD - The Node B may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the Node B may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message for every RL indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]

- [FDD - The Node B shall remove the E-DCH resources, if any, on the Radio Links, that are indicated by the *E-DCH RL Indication* set to "Non E-DCH".]

- [FDD - For each RL for which the *E-DCH RL Indication* IE is set to "E-DCH", and which has or can have a common generation of E-RGCH information with another RL (current or future) when the Node B would contain the E-DCH serving RL, the Node B shall include the *E-DCH RL Set ID* IE in the RADIO LINK RECONFIGURATION RESPONSE message. The value of the *E-DCH RL Set ID* IE shall allow the RNC to identify the E-DCH RLs that have or can have a common generation of E-RGCH information.]

[FDD - Serving E-DCH Radio Link Change:]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Serving E-DCH RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [FDD - If the old Serving E-DCH RL is in this Node B, the Node B shall de-allocate the E-AGCH resources of the old Serving E-DCH Radio Link.]

- [FDD - If the New Serving E-DCH RL is in this Node B:]

 - [FDD - The Node B may allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

 - [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK RECONFIGURATION RESPONSE message for the initial grant for the new serving E-DCH RL.]

 - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

 - [FDD - The Node B may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK RECONFIGURATION RESPONSE message for the new serving E-DCH RL.]

- [FDD - The Node B may include the *E-RGCH/E-HICH Channelisation Code* IE and/or the *E-HICH Signature Sequence* IE and/or the *E-RGCH Signature Sequence* IE or may alternatively include the *E-RGCH Release Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message for every E-DCH Radio Links in the Node B.]

[FDD - E-DCH Modification:]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH FDD Information To Modify* IE, then:]

- [FDD - If the *E-DCH FDD Information To Modify* IE contains a *E-DCH MAC-d Flow Specific Information* IE which includes the *Allocation/Retention Priority* IE, the Node B shall apply the new Allocation/Retention Priority to this E-DCH in the new configuration according to Annex A.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Maximum Number of Retransmissions for E-DCH* IE for an E-DCH MAC-d flow then the Node B shall use this information to report if the maximum number of retransmissions has been exceeded.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH HARQ Power Offset FDD* IE in the *E-DCH FDD Information To Modify* IE for an E-DCH MAC-d flow the Node B shall use this information for calculating the unquantised gain factor for an E-TFC ($\beta_{ed,j,uq}$)as defined in [10].]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains the E-DCH Grant Type and it is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the H*ARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the E-DCH Grant Type and it is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume scheduled grants being configured for that E-DCH MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Logical Channel To Add* or *E-DCH Logical Channel To Delete* IEs, the Node B shall use this information to add/delete the indicated logical channels. When an logical channel is deleted, all its associated configuration data shall also removed.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Logical Channel To Modify* IE, the Node B shall use this information to modify the indicated logical channels:]

 - [FDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Priority Indicator* IE, the Node B shall apply the values in the new configuration.]

 - [FDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Information* IE, the Node B shall apply the values in the new configuration.]

 - [FDD - If the *E-DCH Logical Channel To Modify* IE includes *MAC-es Guaranteed Bit Rate* IE, the Node B shall apply the values in the new configuration.]

 - [FDD - If the *E-DCH Logical Channel To Modify* IE includes E-*DCH DDI Value* IE, the Node B shall apply the values in the new configuration.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information To Modify* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the Node B shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the Node B shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the Node B shall use this information for the related resource allocation operation.]

- [FDD - If the E-DCH serving RL is in this Node B, the Node B may choose to change the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission. In this case the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Reference Power Offset* IE, then the Node B may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Power Offsetfor Scheduling Info* IE, then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *SixteenQAM UL Operation Indicator* IE in the *E-DCH FDD Information To Modify* IE, the Node B shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]

 - [FDD - If SixteenQAM UL Operation is activated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [32]. If SixteenQAM UL Operation is deactivated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [32].]

[FDD - E-DCH MAC-d Flow Addition/Deletion:]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *E-DCH MAC-d Flows To Add* or E-DCH *MAC-d Flows To Delete* IEs, then the Node B shall use this information to add/delete the indicated E-DCH MAC-d flows. When an E-DCH MAC-d flow is deleted, all its associated configuration data shall also be removed.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining E-DCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the E-DCH configuration from the Node B Communication Context and release the E-DCH resources.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH MAC-d Flows To Add* IE, then:]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH MAC-d Flows To Add* IE, the Node B shall use this information to optimise MAC-e scheduling decisions.]

[TDD - Intra-Node B Serving E-DCH Radio Link Change:]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Serving RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [TDD - In the new configuration the Node B shall de-allocate the E-DCH resources of the old Serving E-DCH Radio Link and allocate the E-DCH resources for the new Serving E-DCH Radio Link.]

- [TDD - The Node B shall allocate E-AGCH parameters [1.28Mcps TDD - and E-HICH parameter] corresponding to the E-DCH and include the *E-AGCH Specific Information Response TDD* IE [1.28Mcps TDD - and *E-HICH Specific Information Response TDD* IE]in the *E-DCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [TDD - If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.]

[TDD - E-PUCH Handling]:

[3.84Mcps TDD and 7.68Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-PUCH Information* IE, the Node B shall apply the parameters to the new configuration.]

[1.28Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-PUCH Information LCR* IE, the Node B shall apply the parameters to the new configuration.]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-TFCS Information TDD* IE, the Node B shall apply the beta parameters to the new configuration.]

[3.84Mcps TDD - E-DCH Setup]:

[3.84Mcps TDD - the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE, *E-DCH TDD Information* IE and *E-DCH Non-scheduled Grant Information TDD* IE if there are to be non-scheduled grants.]

[1.28Mcps TDD - E-DCH Setup]:

[1.28Mcps TDD - the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information LCR* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE, *E-DCH TDD Information LCR* IE and *E-DCH Non-scheduled Grant Information LCR TDD* IE if there are to be non-scheduled grants.]

[7.68Mcps TDD - E-DCH Setup]:

[7.68Mcps TDD - the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE, *E-DCH TDD Information 7.68Mcps* IE and *E-DCH Non-scheduled Grant Information 7.68Mcps TDD* IE if there are to be non-scheduled grants.]

[TDD - E-DCH MAC-d Flow Addition/Deletion:]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *E-DCH MAC-d Flows To Add* or E-DCH *MAC-d Flows To Delete* IEs, then the Node B shall use this information to add/delete the indicated E-DCH MAC-d flows. When an E-DCH MAC-d flow is deleted, all its associated configuration data shall also be removed.]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining E-DCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the E-DCH configuration from the Node B Communication Context and release the E-DCH resources.]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining non-scheduled E-DCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the non-scheduled E-DCH configuration from the Node B Communication Context and release the non-scheduled E-DCH resources [1.28 Mcps TDD - and the related Signature Sequence of the Non-scheduled E-HICH].]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH MAC-d Flows To Add* IE, then if the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH MAC-d Flows To Add* IE, the Node B shall use this information to optimise MAC-e scheduling decisions.]

[3.84Mcps TDD - E-DCH Non-scheduled allocations:]

[3.84Mcps TDD - If the *E-DCH Non-scheduled Grant Information TDD* IE is present in the RADIO LINK RECONFIGURATION REQUEST message the Node B shall assume that non-scheduled transmissions will take place according to the parameters in the information element.]

[1.28Mcps TDD - E-DCH Non-scheduled allocations:]

[1.28Mcps TDD - If the *E-DCH Non-scheduled Grant Information LCR TDD* IE is present in the RADIO LINK RECONFIGURATION REQUEST message the Node B shall assume that non-scheduled transmissions will take place according to the parameters in the information element.]

[7.68Mcps TDD - E-DCH Non-scheduled allocations:]

[7.68Mcps TDD - If the *E-DCH Non-scheduled Grant Information 7.68Mcps TDD* IE is present in the RADIO LINK RECONFIGURATION REQUEST message the Node B shall assume that non-scheduled transmissions will take place according to the parameters in the information element.]

[TDD - E-DCH Modification:]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the [3.84Mcps TDD - *E-DCH TDD Information* IE] [1.28Mcps TDD - *E-DCH TDD Information LCR* IE] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps* IE], then:]

- [3.84Mcps TDD - If the *E-DCH TDD Information* IE includes the *E-DCH TDD Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [1.28Mcps TDD - If the *E-DCH TDD Information LCR* IE includes the *E-DCH Physical Layer Category LCR* IE or *Extended E-DCH Physical Layer Category LCR* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [7.68Mcps TDD - If the *E-DCH TDD Information 7.68Mcps* IE includes the *E-DCH TDD Maximum Bitrate 7.68Mcps* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [TDD - If the [3.84Mcps TDD - *E-DCH TDD Information* IE] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps* IE] [1.28Mcps TDD - *E-DCH TDD Information LCR* IE] includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]

- [TDD - If the [3.84Mcps TDD - *E-DCH TDD Information* IE] [1.28Mcps TDD - *E-DCH TDD Information LCR* IE] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps*IE]includes the *E-DCH Power Offset for Scheduling Info* IE, then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH TDD Information To Modify* IE, then:]

- [TDD - If the *E-DCH TDD Information To Modify* IE contains a *E-DCH MAC-d Flow Specific Information* IE which includes the *Allocation/Retention Priority* IE, the Node B shall apply the new Allocation/Retention Priority to this E-DCH in the new configuration according to Annex A.]

- [TDD - If the *E-DCH TDD Information To Modify* IE message includes the *Maximum Number of Retransmissions for E-DCH* IE for an E-DCH MAC-d flow then the Node B shall use this information to report if the maximum number of retransmissions has been exceeded.]

- [1.28Mcps TDD - If the *E-DCH TDD Information To Modify* IE message includes the *E-DCH MAC-d Flow Retransmission Timer* IE for an E-DCH MAC-d flow then the Node B shall use this information to set the retransmissions timer.]

- [TDD - If the *E-DCH TDD Information To Modify* IE message includes the *E-DCH HARQ Power Offset TDD* IE for an E-DCH MAC-d flow the Node B shall use this new power offset value.]

- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]

- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Grant Type* IE, the Node B shall treat the E-DCH MAC-d flow as Scheduled or Non-scheduled accordingly.]

- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Logical Channel To Add* or *E-DCH Logical Channel To Delete* IEs, the Node B shall use this information to add/delete the indicated logical channels. When a logical channel is deleted, all its associated configuration data shall also removed.]

- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Logical Channel To Modify* IE, the Node B shall use this information to modify the indicated logical channels:]

 - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Priority Indicator* IE, the Node B shall apply the values in the new configuration.]

 - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Information* IE, the Node B shall apply the values in the new configuration.]

 - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *MAC-es Guaranteed Bit Rate* IE, the Node B shall apply the values in the new configuration.]

 - [TDD - If the *E-DCH Logical Channel To Modify* IE includes E-*DCH DDI Value* IE, the Node B shall apply the values in the new configuration.]

- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *MAC-e Reset Indicator* IE in the *E-DCH TDD Information To Modify* IE, then the Node B shall use this value to determine whether MAC-e Reset is performed in the UE for sending the HARQ Failure Indication.]

General

If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IEs in the *HS-DSCH Information* IE, *HS-DSCH Information To Modify Unsynchronised* IE, *HS-DSCH MAC-d Flows To Add* IE, [FDD -*RL Specific E-DCH Information* IE] [TDD - *E-DCH MAC-d Flows to Add* IE, *E-DCH TDD Information to Modify* IE] or in the *RL Specific DCH Information* IE, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included] or MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included] being added or any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included] or MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included] being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

If the requested modifications are allowed by the Node B, the Node B has successfully allocated the required resources, and changed to the new configuration, it shall respond to the CRNC with the RADIO LINK RECONFIGURATION RESPONSE message.

The Node B shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Transport Layer Address* IE and the *Binding ID* IE for any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included], or MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included], being added or any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included] or MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included] being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE. The detailed frame protocol handling during transport bearer replacement is described in [16], subclause 5.10.1 and in [24], subclause 5.8.3.

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer shall not be Established" for a DCH or an E-DCH MAC-d flow being added, then the Node B shall not establish a transport bearer for the concerned DCH or E-DCH MAC-d flow and shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH or E-DCH MAC-d flow in the RADIO LINK RECONFIGURATION RESPONSE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for a DCH or an E-DCH MAC-d flow being added and:]

- [FDD - if the Node B establishes a transport bearer for the concerned DCH or E-DCH MAC-d flow, the Node B shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the DCH or E-DCH MAC-d flow being established.]

- [FDD - if the Node B does not establish a transport bearer for the concerned DCH or E-DCH MAC-d flow, the Node B shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH or E-DCH MAC-d flow in the RADIO LINK RECONFIGURATION RESPONSE message.]

In the case of a set of co-ordinated DCHs requiring a new transport bearer on the Iub interface, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included only for one of the DCH [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included] in the set of coordinated DCHs.

In the case of a Radio Link being combined with another Radio Link within the Node B, the *Transport Layer Address* IE and the *Binding ID* IE [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included] in the *DCH Information Response* IE shall be included only for one of the combined Radio Links.

[FDD - In the case of an E-DCH RL being combined with another E-DCH RL within the Node B, the *E-DCH FDD Information Response* IE shall be included only for one of the combined E-DCH RLs.]

In the case of a signalling bearer re-arrangement, the new Communication Control Port shall be used once the Node B has sent the RADIO LINK RECONFIGURATION RESPONSE message via the old Communication Control Port.

8.3.5.3 Unsuccessful Operation

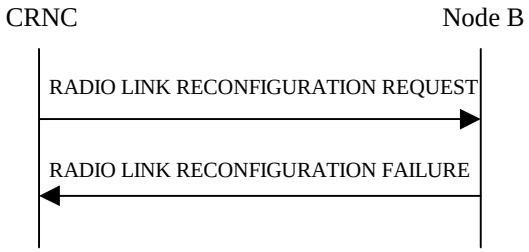


Figure 35: Unsynchronised Radio Link Reconfiguration procedure, Unsuccessful Operation

If the Node B cannot allocate the necessary resources for all the new DCHs of one set of co-ordinated DCHs requested to be set-up, it shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed.

If the requested Unsynchronised Radio Link Reconfiguration procedure fails for one or more Radio Link(s), the Node B shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC, indicating the reason for failure.

Typical cause values are as follows:

Radio Network Layer Cause

- CM not supported
- [FDD - Continuous Packet Connectivity DTX-DRX operation not available]
- [FDD - Continuous Packet Connectivity UE DTX Cycle not available]
- [FDD - MIMO not available]

Transport Layer Cause

- Transport Resources Unavailable

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

8.3.5.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the Node B shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed and shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.

[FDD - If the concerned Node B Communication Context is configured to use DPCH in the downlink and if the *RL Information* IE contains the *DL Code Information* IE and this IE includes *DL Scrambling Code* and *FDD DL Channelisation Code Number* IEs not matching the DL Channelisation code(s) already allocated to the Radio Link identified by *RL ID* IE, then the Node B shall consider the Unsynchronised Radio Link Reconfiguration procedure as having failed and it shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.]

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD - or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"], the Node B shall regard the Unsynchronised Radio Link Reconfiguration Preparation procedure as failed and shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes a *DCHs To Modify* IE or *DCHs To Add* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCHs To Modify* IE or *DCHs To Add* IE do not have the same *Transmission Time Interval* IE in the *Semi-Static Transport Format Information* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the *RL Information* IE includes the *DL Reference Power* IEs, but the power balancing is not active in the indicated RL(s), the Node B shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed and the Node B shall respond the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the Node B Communication Context set to "Common" in the existing RL(s) but the *RL Information* IE includes more than one *DL Reference Power* IEs, the Node B shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed and the Node B shall respond the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

If the RADIO LINK RECONFIGURATION REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for any Transport Channel or HS-DSCH MAC-d flow being added or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE, and not both are present for a transport bearer intended to be established, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE or *HS-DSCH MAC-d Flows To Delete* IE in addition to the *HS-DSCH Information* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE, *HS-DSCH MAC-d Flows To Delete* IE or *HS-PDSCH RL ID* IE and the Serving HS-DSCH Radio Link is not in the Node B, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Information* IE and does not include the *HS-PDSCH RL-ID* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-PDSCH RL-ID* IE indicating a Radio Link not existing in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *HS-DSCH Information* IE, *HS-DSCH Information To Modify* IE, or *HS-DSCH MAC-d Flows To Add* IE and if in the new configuration the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned Node B Communication Context is configured to use "Indexed MAC-d PDU Size" for an HS-DSCH but there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use

Maximum MAC-d PDU Size Extended, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned Node B Communication Context is configured to use "Flexible MAC-d PDU Size" for an HS-DSCH but there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use MAC-d PDU Size Index, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains the *HS-DSCH Information* IE and if the *Measurement Power Offset* IE is not present, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION REQUEST message includes *HS-DSCH Information* IE and the HS-DSCH is already configured in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the concerned Node B Communication Context is configured to use F-DPCH in the downlink and if the *RL Information* IE contains the *DL Code Information* IE, then the Node B shall consider the Unsynchronised Radio Link Reconfiguration procedure as having failed and it shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION REQUEST message, but the *E-DPCH Information* IE is not present, or if any of the *Maximum Set of E-DPDCHs* IE, *Puncture Limit* IE, *E-TFCS Information* IE, *E-TTI* IE, *E-DPCCH Power Offset* IE, *HS-DSCH Configured Indicator* IE, are not present in the *E-DPCH Information* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If any the *HS-DSCH Configured Indicator* IE, of the *Maximum Set of E-DPDCHs* IE, *Puncture Limit* IE or *E-TTI* IE are present in the *E-DPCH Information* IE and the *E-DCH FDD Information* IE is not present in the RADIO LINK RECONFIGURATION REQUEST message, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes one of the *Not Used* IEs, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH RL Indication* IE set to "E-DCH", but no *E-DCH FDD Information* IE, and the Node B Communication Context is not configured for E-DCH, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH FDD Information* IE but no *E-DCH RL Indication* IE set to "E-DCH", then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION REQUEST message contains the *HS-PDSCH RL ID* IE and/or the *Serving E-DCH RL* IE and if both HS-DSCH and E-DCH are configured in the new configuration but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains the *HS-PDSCH RL ID* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as 'HS-DSCH not configured' then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *E-DCH FDD Information To Modify* IE, *E-DCH MAC-d Flows To Add* IE or *E-DCH MAC-d Flows To Delete* IE in addition to the *E-DCH FDD Information* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *E-DCH FDD Information To Modify* IE, *E-DCH MAC-d Flows To Add* IE, *E-DCH MAC-d Flows To Delete* IE and the Node B Communication Context is not configured for E-DCH, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH FDD Information To Modify* IE deleting the last remaining E-DCH Logical Channel of an E-DCH MAC-d Flow, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes *E-DCH FDD Information* IE and the E-DCH is already configured in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[TDD - if the radio link was not previously configured to support E-DCH, then if the RADIO LINK RECONFIGURATION REQUEST message includes one of the following E-DCH information elements then it shall contain all of them otherwise the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.: *E-DCH Serving RL* IE, [3.84Mcps TDD and 7.68Mcps - *E-PUCH Information* IE, *E-TFCS Information TDD* IE], [1.28Mcps TDD - *E-PUCH Information LCR* IE, *E-TFCS Information TDD* IE], *E-DCH MAC-d Flows to Add* IE, and [3.84Mcps TDD - *E-DCH TDD Information* IE] [1.28Mcps TDD - *E-DCH TDD Information LCR* IE] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps* IE].]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE in addition to the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only" but no *Transport Format Set* IE for the uplink for this DCH and the Node B had ignored the configuration of Transport Format Set for uplink, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only" but no *Transport Format Set* IE for the downlink for this DCH and the Node B had ignored the configuration of Transport Format Set for downlink, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains the *Transport Bearer Not Requested Indicator* IE for a DCH but does not contain the corresponding *DCH ID* IE and the *Unidirectional DCH indicator* IE set to "Uplink DCH only" for the DCH in *DCH Information To Add* IE, the Node B shall reject the procedure using the the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to apply UL DPCCH Slot Format 0 or 2 and execute Continuous Packet Connectivity DTX-DRX operation, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to apply MIMO or allowed to apply 64 QAM but is not configured to use flexible MAC-d PDU Size, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

8.3.6 Radio Link Deletion

8.3.6.1 General

The Radio Link Deletion procedure is used to release the resources in a Node B for one or more established radio links towards a UE.

The Radio Link Deletion procedure may be initiated by the CRNC at any time when the Node B Communication Context exists.

8.3.6.2 Successful Operation

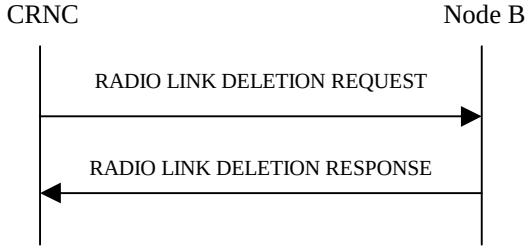


Figure 36: Radio Link Deletion procedure, Successful Operation

The procedure is initiated with a RADIO LINK DELETION REQUEST message sent from the CRNC to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

Upon receipt of this message, the Node B shall delete the radio link(s) identified by the *RL ID* IE, *Node B Communication Context ID* IE and *CRNC Communication Context ID* IE and release all associated resources and respond to the CRNC with a RADIO LINK DELETION RESPONSE message.

[FDD - After deletion of the RL(s), the UL out-of-sync algorithm defined in ref. [10] shall for each of the remaining RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE that are configured in the cells supporting the radio links of the RL Set and the UL in-sync algorithm defined in ref. [10] shall for each of the remaining RL Set(s) use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set.]

8.3.6.3 Unsuccessful Operation

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8.3.6.4 Abnormal Conditions

If the RL indicated by the *RL ID* IE, *Node B Communication Context ID* IE *and CRNC Communication Context ID* IE does not exist, the Node B shall respond with the RADIO LINK DELETION RESPONSE message and use the *CRNC Communication Context ID* IE received in the RADIO LINK DELETION REQUEST message.

8.3.7 Downlink Power Control [FDD]

8.3.7.1 General

The purpose of this procedure is to balance the DL transmission powers of one or more Radio Links used for the related UE-UTRAN connection within the Node B. The Downlink Power Control procedure may be initiated by the CRNC at any time when the Node B Communication Context exists, irrespective of other ongoing CRNC initiated dedicated NBAP procedures towards this Node B Communication Context. The only exception occurs when the CRNC has requested the deletion of the last RL via this Node B, in which case the Downlink Power Control procedure shall no longer be initiated.

8.3.7.2 Successful Operation



Figure 37: Downlink Power Control procedure, Successful Operation

The procedure is initiated by the CRNC sending a DL POWER CONTROL REQUEST message to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

The *Power Adjustment Type* IE defines the characteristic of the power adjustment.

If the value of the *Power Adjustment Type* IE is "Common", the Power Balancing Adjustment Type of the Node B Communication Context shall be set to "Common". As long as the Power Balancing Adjustment Type of the Node B Communication Context is set to "Common", the Node B shall perform the power adjustment (see below) for all existing and future radio links associated with the context identified by the *Node B Communication Context ID* IE and use a common DL reference power level.

If the value of the *Power Adjustment Type* IE is "Individual", the Power Balancing Adjustment Type of the Node B Communication Context shall be set to "Individual". The Node B shall perform the power adjustment (see below) for all radio links addressed in the message using the given DL Reference Powers per RL. If the Power Balancing Adjustment Type of the Node B Communication Context was set to "Common" before this message was received, power balancing on all radio links not addressed by the DL POWER CONTROL REQUEST message shall remain to be executed in

accordance with the existing power balancing parameters which are now considered RL individual parameters. Power balancing will not be started on future radio links without a specific request.

If the value of the *Power Adjustment Type* IE is "None", the Power Balancing Adjustment Type of the Node B Communication Context shall be set to "None" and the Node B shall suspend on going power adjustments for all radio links for the Node B Communication Context.

If the *Inner Loop DL PC Status* IE is present and set to "Active", the Node B shall activate inner loop DL power control for all radio links for the Node B Communication Context. If the *Inner Loop DL PC Status* IE is present and set to "Inactive", the Node B shall deactivate inner loop DL power control for all radio links for the Node B Communication Context according to ref. [10].

Power Adjustment

The power balancing adjustment shall be superimposed on the inner loop power control adjustment (see ref. [10]) if activated. The power balancing adjustment shall be such that:

$\sum P_{bal} = (1-r)(P_{ref} + P_{P-CPICH} - P_{init})$ with an accuracy of ±0.5 dB

where the sum is performed over an adjustment period corresponding to a number of frames equal to the value of the *Adjustment Period* IE, P_{ref} is the value of the *DL Reference Power* IE, $P_{P\text{-}CPICH}$ is the power used on the primary CPICH, P_{init} is the code power of the last slot of the previous adjustment period and r is given by the *Adjustment Ratio* IE. If the last slot of the previous adjustment period is within a transmission gap due to compressed mode, P_{init} shall be set to the same value as the code power of the slot just before the transmission gap.

The adjustment within one adjustment period shall in any case be performed with the constraints given by the *Max Adjustment Step* IE and the DL TX power range set by the CRNC.

The power adjustments shall be started at the first slot of a frame with CFN modulo the value of *Adjustment Period* IE equal to 0 and shall be repeated for every adjustment period and shall be restarted at the first slot of a frame with CFN=0, until a new DL POWER CONTROL REQUEST message is received or the RL is deleted.

8.3.7.3 Abnormal Conditions

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8.3.8 Dedicated Measurement Initiation

8.3.8.1 General

This procedure is used by a CRNC to request the initiation of measurements on dedicated resources in a Node B.

The Dedicated Measurement Initiation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1 except when the *Node B Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION REQUEST message is set to the reserved value "All NBCC".

If the *Node B Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION REQUEST message is set to the reserved value "All NBCC", the Dedicated Measurement Initiation procedure may be initiated by the CRNC at any time when the Node B Communication Context exists.

8.3.8.2 Successful Operation

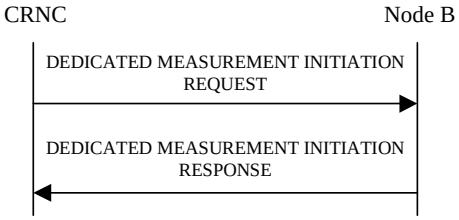


Figure 38: Dedicated Measurement Initiation procedure, Successful Operation

The procedure is initiated with a DEDICATED MEASUREMENT INITIATION REQUEST message sent from the CRNC to the Node B using the Communication Control Port assigned to the Node B Communication Context.

Upon reception, the Node B shall initiate the requested measurement according to the parameters given in the DEDICATED MEASUREMENT INITIATION REQUEST message. Unless specified below the meaning of the parameters are given in other specifications.

If the *Node B Communication Context ID* IE equals the reserved value "All NBCC", this measurement request shall apply for all current and future Node B Communication Contexts controlled via the Communication Control Port on which the DEDICATED MEASUREMENT INITIATION REQUEST message was received. Otherwise, this measurement request shall apply for the requested Node B Communication Context ID only.

If the *Node B Communication Context ID* IE equals the reserved value "All NBCC", the measurement request shall be treated as a single measurement, despite applying to multiple contexts. This means that it may only be terminated or failed on "All NBCC".

If the *Node B Communication Context ID* IE equals the reserved value "All NBCC", the measurement shall be initiated only for those Node B Communication Contexts handling a mode (FDD, 3.84Mcps TDD, 7.68Mcps TDD or 1.28Mcps TDD) for which the concerned measurement is specified in [4] and [5]. The initiation of the measurement for a Node B Communication Context may be delayed until the Reconfiguration CFN has elapsed if either a Prepared Reconfiguration exists or a Prepared Reconfiguration no longer exists but the Reconfiguration CFN has not yet elapsed.

If the Dedicated Measurement Object Type is indicated as being "RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all indicated Radio Links.

[FDD - If the Dedicated Measurement Object Type is indicated as being "RLS" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all indicated Radio Link Sets.]

[FDD - If the Dedicated Measurement Object Type is indicated as being "ALL RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all current and future Radio Links within the Node B Communication Context.]

[TDD - If the Dedicated Measurement Object Type is indicated as being "ALL RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for one existing DPCH per CCTrCH in each used time slot of current and future Radio Links within the Node B Communication Context, provided the measurement type is applicable to the respective DPCH.]

[FDD - If the Dedicated Measurement Object Type is indicated as being "ALL RLS" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all existing and future Radio Link Sets within the Node B Communication Context.]

[TDD - If the *DPCH ID* IE or *DPCH ID 7.68Mcps* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually. If no *DPCH ID* IE, *HS-SICH ID* IE, *DPCH ID 7.68Mcps* IE and no *PUSCH Information* IE is provided within the RL Information, the measurement request shall apply for one existing physical channel per CCTrCH in each used time slot of the Radio Link, provided the measurement type is applicable to this physical channel.]

[TDD - If the *PUSCH Information* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually.]

[TDD - If the *HS-SICH Information* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually.]

[TDD - If the *Dedicated Measurement Type* IE is set to "HS-SICH reception quality ", the Node B shall initiate measurements of the failed, missed and total HS-SICH transmissions on all of the HS-SICH assigned to this Node B Communication Context. If either the failed or missed HS-SICH transmission satisfies the requested report characteristics, the Node B shall report the result of both failed and missed transmission measurements along with the total number of transmissions.]

If the *CFN Reporting Indicator* IE is set to "FN Reporting Required", the *CFN* IE shall be included in the DEDICATED MEASUREMENT REPORT message or in the DEDICATED MEASUREMENT INITIATION RESPONSE message, the latter only in the case the *Report Characteristics* IE is set to "On Demand". The reported CFN shall be the CFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [25].

[FDD - If the *Number Of Reported Cell Portions* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message, the value shall be used to determine how many *Cell Portion ID* IEs and *SIR Value* IEs shall be included in *Best Cell Portions* IE in the DEDICATED MEASUREMENT REPORT message or in the DEDICATED MEASUREMENT INITIATION RESPONSE message.]

Report characteristics
The *Report Characteristics* IE indicates how the reporting of the measurement shall be performed. See also Annex B.

If the *Report Characteristics* IE is set to "On Demand" and if the *CFN* IE is not provided, the Node B shall return the result of the measurement immediately. If the *CFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *Report Characteristics* IE is set to "Periodic", the Node B shall periodically initiate the Dedicated Measurement Report procedure for this measurement, with the requested report frequency. If the *CFN* IE is provided, it indicates the frame for which the first measurement value of a periodic reporting shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *Report Characteristics* IE is set to "Event A", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event B", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event C", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next C event reporting for the same measurement cannot be initiated before the rising time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to "Event D", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next D event reporting for the same measurement cannot be initiated before the falling time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to "Event E", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided, the Node B shall also initiate the Dedicated Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Dedicated Measurement Reporting procedure (Report B) as well as terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the Node B shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "Event F", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided, the

Node B shall also initiate the Dedicated Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Dedicated Measurement Reporting procedure (Report B) as well as terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the Node B shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is not set to "On Demand", the Node B is required to perform reporting for a dedicated measurement object, in accordance with the conditions provided in the DEDICATED MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no dedicated measurement object for which a measurement is defined exists anymore, the Node B shall terminate the measurement locally, i.e. without reporting this to the CRNC.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the Node B shall initiate the Dedicated Measurement Reporting procedure immediately, and then continue with the measurements as specified in the DEDICATED MEASUREMENT INITIATION REQUEST message.

Higher layer filtering
The *Measurement Filter Coefficient* IE indicates how filtering of the measurement values shall be performed before measurement event evaluation and reporting.

The averaging shall be performed according to the following formula.

$$F_n = (1-a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows

F_n is the updated filtered measurement result

F_{n-1} is the old filtered measurement result

M_n is the latest received measurement result from physical layer measurements, the unit used for M_n is the same unit as the reported unit in the DEDICATED MEASUREMENT INITIATION RESPONSE, DEDICATED MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for Fn)

$a = 1/2^{(k/2)}$, where k is the parameter received in the *Measurement Filter Coefficient* IE. If the *Measurement Filter Coefficient* IE is not present, *a* shall be set to 1 (no filtering)

In order to initialise the averaging filter, F_0 is set to M_1 when the first measurement result from the physical layer measurement is received.

Measurement Recovery Behavior:

If the *Measurement Recovery Behavior* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message, the Node B shall, if Measurement Recovery Behavior is supported, include the *Measurement Recovery Support Indicator* IE in the DEDICATED MEASUREMENT INITIATION RESPONSE message and perform the Measurement Recovery Behavior as described in subclause 8.3.9.2.

Response message
If the Node B was able to initiate the measurement requested by the CRNC, it shall respond with the DEDICATED MEASUREMENT INITIATION RESPONSE message using the Communication Control Port assigned to the Node B Communication Context. The message shall include the same Measurement ID that was used in the measurement request. The DEDICATED MEASUREMENT INITIATION RESPONSE message shall be sent even if the initiation is delayed for some Node B Communication Contexts due to an existing Prepared Reconfiguration or that the Reconfiguration CFN has not yet elapsed.

Only in the case where the *Report Characteristics* IE is set to "On Demand", the DEDICATED MEASUREMENT INITIATION RESPONSE message shall include the *Dedicated Measurement Object Type* IE containing the measurement result. [TDD - In the case that the measurement was performed on a particular HS-SICH, the Node B shall include the *HS-SICH ID* IE that indicates which HS-SICH was measured.]

In the case where the *Node B Communication Context ID* IE is set to "All NBCC", the *CRNC Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION RESPONSE shall be set to the value "All CRNCCC", which is reserved for this purpose.

[FDD - If the *Alternative Format Reporting Indicator* IE is set to "Alternative format is allowed" in the DEDICATED MEASUREMENT INITIATION REQUEST message, the Node B may include the *Extended Round Trip Time* IE in the DEDICATED MEASUREMENT INITIATION RESPONSE message.]

Interaction with Reset Procedure:

If a measurement has been requested with the *Node B Communication Context ID* IE set to "All NBCC", the Node B shall terminate the measurement locally if either the CRNC or the Node B initiates the Reset procedure for the relevant Communication Control Port or the entire Node B.

8.3.8.3 Unsuccessful Operation

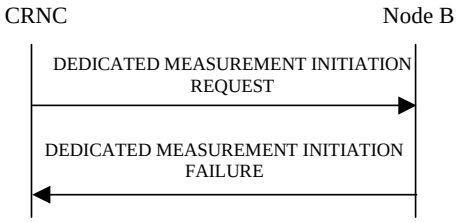


Figure 39: Dedicated Measurement Initiation procedure: Unsuccessful Operation

If the requested measurement cannot be initiated, the Node B shall send a DEDICATED MEASUREMENT INITIATION FAILURE message using the Communication Control Port assigned to the Node B Communication Context. The message shall include the same Measurement ID that was used in the DEDICATED MEASUREMENT INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

In the case where the *Node B Communication Context ID* IE is set to "All NBCC" the *CRNC Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION FAILURE shall be set to the value "All CRNCCC", which is reserved for this purpose.

Typical cause values are as follows:

Radio Network Layer cause

- Measurement not supported for the object
- Measurement Temporarily not Available

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

8.3.8.4 Abnormal Conditions

The allowed combinations of the Dedicated Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the Node B shall regard the Dedicated Measurement Initiation procedure as failed.

Table 4: Allowed Dedicated Measurement Type and Report Characteristics Type combinations

Dedicated Measurement Type	Report Characteristics Type								
	On Demand	Periodic	Event A	Event B	Event C	Event D	Event E	Event F	On Modification
SIR	X	X	X	X	X	X	X	X	
SIR Error	X	X	X	X	X	X	X	X	
Transmitted Code Power	X	X	X	X	X	X	X	X	
RSCP	X	X	X	X	X	X	X	X	
Rx Timing Deviation	X	X	X	X			X	X	
Round Trip Time	X	X	X	X	X	X	X	X	
Rx Timing Deviation LCR	X	X	X	X			X	X	
HS-SICH reception quality	X	X	X	X			X	X	
Best Cell Portions	X	X							
Angle Of Arrival LCR	X	X							
Rx Timing Deviation 7.68Mcps	X	X	X	X			X	X	
Rx Timing Deviation 3.84Mcps Extended	X	X	X	X			X	X	

If the Dedicated Measurement Type received in the *Dedicated Measurement Type* IE is not defined in ref. [4] or [5] to be measured on the Dedicated Measurement Object Type received in the DEDICATED MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Dedicated Measurement Initiation procedure as failed.

If the *CFN* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic" or "On Demand", the Node B shall regard the Dedicated Measurement Initiation procedure as failed.

8.3.9 Dedicated Measurement Reporting

8.3.9.1 General

This procedure is used by the Node B to report the result of measurements requested by the CRNC with the Dedicated Measurement Initiation procedure. The Node B may initiate the Dedicated Measurement Reporting procedure at any time after establishing a Radio Link, as long as the Node B Communication Context exists.

8.3.9.2 Successful Operation



Figure 40: Dedicated Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the Node B shall initiate the Dedicated Measurement Reporting procedure. The DEDICATED MEASUREMENT REPORT message shall use the Communication Control Port assigned to the Node B Communication Context. If the measurement was initiated (by the Dedicated Measurement Initiation procedure) for multiple dedicated measurement objects, the Node B may include measurement values for

multiple objects in the DEDICATED MEASUREMENT REPORT message. Unless specified below, the meaning of the parameters are given in other specifications.

The *Measurement ID* IE shall be set to the Measurement ID provided by the CRNC when initiating the measurement with the Dedicated Measurement Initiation procedure.

[TDD - In the case that the measurement was performed on a particular HS-SICH, the Node B shall include the *HS-SICH ID* IE that indicates which HS-SICH was measured.]

If the achieved measurement accuracy does not fulfil the given accuracy requirement (see ref.[22] and [23]) or the measurement is temporarily not available in case Measurement Recovery Behavior is supported, the Measurement not available shall be reported. If the Node B was configured to perform the Measurement Recovery Behavior, the Node B shall indicate Measurement Available to the CRNC when the achieved measurement accuracy again fulfils the given accuracy requirement (see ref. [22] and [23]) and include the *Measurement Recovery Report Indicator* IE in the DEDICATED MEASUREMENT REPORT message if the requested measurement reporting criteria are not met.

[FDD - If the *Alternative Format Reporting Indicator* IE was set to "Alternative format is allowed" in the DEDICATED MEASUREMENT INITIATION REQUEST message setting up the measurement to be reported, the Node B may include the *Extended Round Trip Time* IE in the DEDICATED MEASUREMENT REPORT message.]

8.3.9.3 Abnormal Conditions

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8.3.10 Dedicated Measurement Termination

8.3.10.1 General

This procedure is used by the CRNC to terminate a measurement previously requested by the Dedicated Measurement Initiation procedure.

The Dedicated Measurement Termination procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1 except if the measurement was initiated by the Dedicated Measurement Initiation procedure using the reserved value "All NBCC".

If the measurement was initiated by the Dedicated Measurement Initiation procedure using the reserved value "All NBCC", the Dedicated Measurement Termination procedure may be initiated by the CRNC at any time.

8.3.10.2 Successful Operation

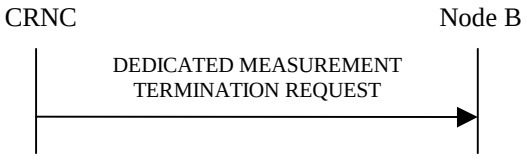


Figure 41: Dedicated Measurement Termination procedure, Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT TERMINATION REQUEST message, sent from the CRNC to the Node B using the Communication Control Port assigned to the Node B Communication Context.

Upon reception, the Node B shall terminate reporting of dedicated measurements corresponding to the received *Measurement ID* IE.

8.3.10.3 Abnormal Conditions

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8.3.11 Dedicated Measurement Failure

8.3.11.1 General

This procedure is used by the Node B to notify the CRNC that a measurement previously requested by the Dedicated Measurement Initiation procedure can no longer be reported. The Node B is allowed to initiate the DEDICATED MEASUREMENT FAILURE INDICATION message at any time after having sent the RADIO LINK SETUP RESPONSE message, as long as the Node B Communication Context exists.

8.3.11.2 Successful Operation



Figure 42: Dedicated Measurement Failure procedure, Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT FAILURE INDICATION message, sent from the Node B to the CRNC using the Communication Control Port assigned to the Node B Communication Context, to inform the CRNC that a previously requested measurement can no longer be reported. The Node B has locally terminated the indicated measurement.

If the failed measurement was initiated with the *Node B Communication Context ID* IE set to the reserved value "All NBCC" and the Node B has terminated the measurement reporting of the measurement corresponding to the Measurement ID indicated in the DEDICATED MEASUREMENT FAILURE INDICATION message, the *CRNC Communication Context ID* IE shall be set to the value "All CRNCCC".

8.3.11.3 Abnormal Conditions

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8.3.12 Radio Link Failure

8.3.12.1 General

This procedure is used by the Node B to indicate a failure in one or more Radio Links [FDD - or Radio Link Sets][TDD or CCTrCHs within a Radio Link].

The Node B may initiate the Radio Link Failure procedure at any time after establishing a Radio Link.

8.3.12.2 Successful Operation

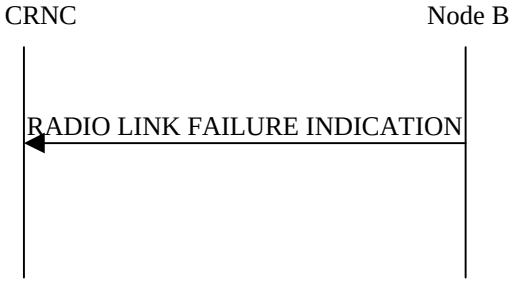


Figure 43: Radio Link Failure procedure, Successful Operation

When the Node B detects that one or more Radio Link(s) [FDD - or Radio Link Set(s)] [TDD - or CCTrCHs within a Radio Link] are no longer available, it sends the RADIO LINK FAILURE INDICATION message to the CRNC

indicating the failed Radio Link(s) or Radio Link Set(s) or CCTrCHs with the most appropriate cause values in the *Cause* IE. The message shall use the Communication Control Port assigned to the concerned Node B Communication Context.

If the failure concerns one or more individual Radio Link(s), the Node B shall indicate the affected Radio Link(s) using the *RL Information* IE. [FDD - If the failure concerns one or more Radio Link Set(s), the Node B shall indicate the affected Radio Link Set(s) using the *RL Set Information* IE.] [TDD - If the failure concerns only the failure of one or more CCTrCHs within a radio link, the Node B shall indicate the affected CCTrCHs using the *CCTrCH ID* IE.]

When the Radio Link Failure procedure is used to notify the loss of UL synchronisation of a [FDD - Radio Link Set] [TDD - Radio Link or CCTrCHs within a Radio Link] on the Uu interface, the RADIO LINK FAILURE INDICATION message shall be sent, with the *Cause* IE set to "Synchronisation Failure", when indicated by the UL out-of-sync algorithm defined in [10] and [21]. [FDD - The algorithms in [10] shall use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set.]

[FDD - When the Radio Link Failure procedure is used to indicate permanent failure in one or more Radio Link(s) / Radio Link Set(s) due to the occurrence of an UL or DL frame with more than one transmission gap caused by one or more compressed mode pattern sequences, the DL transmission shall be stopped and the RADIO LINK FAILURE INDICATION message shall be sent with the cause value "Invalid CM Settings". After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the Node B shall not remove the Radio Link(s)/Radio Link Set(s) from the Node B Communication Context or the Node B Communication Context itself.]

[FDD - When the Radio Link Failure Procedure is used to indicate E-DCH non serving cell processing issue, the RADIO LINK FAILURE INDICATION shall be sent, with the *Cause* IE set to "Not enough user plane processing resources".]

In the other cases, the Radio Link Failure procedure is used to indicate that one or more Radio Link(s)/Radio Link Set(s) are permanently unavailable and cannot be restored. After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the Node B shall not remove the Radio Link/Radio Link Set from the Node B Communication Context or the Node B Communication Context itself. When applicable, the retention priorities associated with the transport channels shall be used by the Node B to prioritise which Radio Link(s)/Radio Link Set(s) to indicate as unavailable to the CRNC.

Typical cause values are:

Radio Network Layer Causes:

- Synchronisation Failure
- Invalid CM settings

Transport Layer Causes:

- Transport Resources Unavailable

Miscellaneous Causes:

- Control Processing Overload
- HW Failure
- O&M Intervention
- Not enough user plane processing resources

8.3.12.3 Abnormal Conditions

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8.3.13 Radio Link Restoration

8.3.13.1 General

This procedure is used by the Node B to notify the achievement and re-achievement of uplink synchronisation of one or more [FDD - Radio Link Sets][TDD - Radio Links or CCTrCHs within a Radio Link] on the Uu interface.

The Node B may initiate the Radio Link Restoration procedure at any time after establishing a Radio Link.

8.3.13.2 Successful Operation

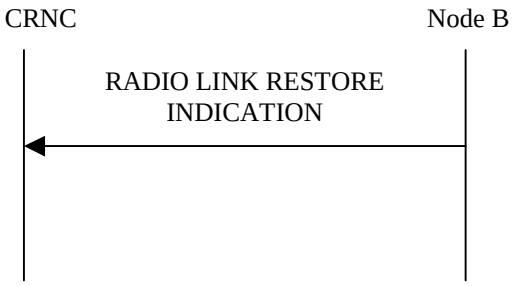


Figure 44: Radio Link Restoration procedure, Successful Operation

The Node B shall send the RADIO LINK RESTORE INDICATION message to the CRNC when indicated by the UL synchronisation detection algorithm defined in ref. [10] and [21] [FDD -, or when the *Fast Reconfiguration Mode* IE has been included in the RADIO LINK RECONFIGURATION COMMIT message and the Node B has detected that the UE has changed to the new configuration. The algorithm in ref. [10] shall use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set.] The message shall use the Communication Control Port assigned to the concerned Node B Communication Context.

[TDD - If the re-established Uu synchronisation concerns one or more individual Radio Links, the Node B shall indicate the affected Radio Link(s) using the *RL Information* IE.] [TDD - If the re-established Uu synchronisation concerns one or more individual CCTrCHs within a radio link, the Node B shall indicate the affected CCTrCHs using the *CCTrCH ID* IE.] [FDD - If the re-established Uu synchronisation concerns one or more Radio Link Set(s), the Node B shall indicate the affected Radio Link Set(s) using the *RL Set Information* IE.]

[FDD - The Node B shall send the RADIO LINK RESTORE INDICATION message when the E-DCH processing issue condition has ceased.]

8.3.13.3 Abnormal Condition

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8.3.14 Compressed Mode Command [FDD]

8.3.14.1 General

The Compressed Mode Command procedure is used to activate or deactivate the compressed mode in the Node B for one Node B Communication Context.

The Compressed Mode Command procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.14.2 Successful Operation



Figure 47: Compressed Mode Command procedure, Successful Operation

The procedure is initiated by the CRNC sending a COMPRESSED MODE COMMAND message to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

The Node B shall deactivate all the ongoing Transmission Gap Pattern Sequences at the *CM Configuration Change CFN* IE requested by the CRNC when receiving the COMPRESSED MODE COMMAND message from the CRNC. From that moment on, all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE repetitions (if present) shall be started when the indicated *TGCFN* IE elapses. The *CM Configuration Change CFN* IE in the *Active Pattern Sequence Information* IE and *TGCFN* IE for each sequence refer to the next coming CFN with that value.

If the values of the *CM Configuration Change CFN* IE and the *TGCFN* IE are equal, the concerned Transmission Gap Pattern Sequence shall be started immediately at the CFN with a value equal to the value received in the *CM Configuration Change CFN* IE.

If the concerned Node B Communication Context is configured to use F-DPCH in the downlink, the Node B shall ignore, when activating the Transmission Gap Pattern Sequence(s), the downlink compressed mode method information, if existing, for the concerned Transmission Gap Pattern Sequence(s) in the Compressed Mode Configuration.

8.3.14.3 Abnormal Conditions

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8.3.15 Downlink Power Timeslot Control [TDD]

8.3.15.1 General

The purpose of this procedure is to enable the Node B to use the indicated DL Timeslot ISCP values when deciding the DL TX Power for each timeslot.

The Downlink Power Timeslot Control procedure can be initiated by the CRNC at any time when the Node B Communication Context exists, irrespective of other ongoing CRNC initiated dedicated NBAP procedures towards this Node B Communication Context. The only exception occurs when the CRNC has requested the deletion of the last RL via this Node B, in which case the Downlink Power Timeslot Control procedure shall no longer be initiated.

8.3.15.2 Successful Operation



Figure 47A: Downlink Power Timeslot Control procedure, Successful Operation

The procedure is initiated by the CRNC sending a DL POWER TIMESLOT CONTROL REQUEST message to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

Upon reception, the Node B shall use the indicated DL Timeslot ISCP value when deciding the DL TX Power for each timeslot as specified in ref. [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link

where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged.

If the *Primary CCPCH RSCP Delta* IE is included, the Node B shall assume that the reported value for Primary CCPCH RSCP is in the negative range as per [23], and the value is equal to the *Primary CCPCH RSCP Delta* IE. If the *Primary CCPCH RSCP Delta* IE is not included and the *Primary CCPCH RSCP* IE is included, the Node B shall assume that the reported value is in the non-negative range as per [23], and the value is equal to the *Primary CCPCH RSCP* IE. The Node B should use the indicated value for HS-DSCH scheduling and transmit power adjustment.

8.3.15.3 Abnormal Conditions

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8.3.16 Radio Link Pre-emption

8.3.16.1 General

This procedure is started by the Node B when resources need to be freed.

The Node B may initiate the Radio Link Pre-emption procedure at any time after establishing a Radio Link.

8.3.16.2 Successful Operation

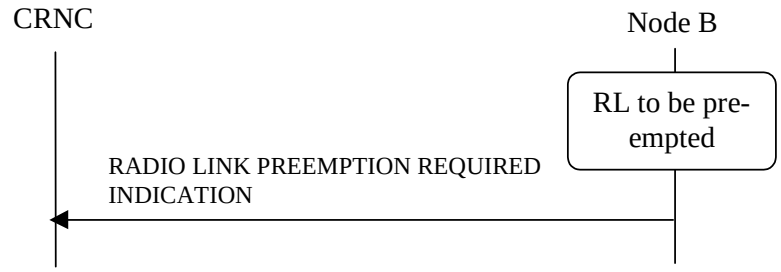


Figure 47B: Radio Link Pre-emption procedure, Successful Operation

When the Node B detects that a one or more Radio Links should be pre-empted (see Annex A), it shall send the RADIO LINK PREEMPTION REQUIRED INDICATION message to the CRNC using the Communication Control Port assigned to the concerned Node B Communication Context.

If all Radio Links for a CRNC Communication Context ID should be pre-empted, the *RL Information* IE shall be omitted. If one or several but not all Radio Links should be pre-empted for a CRNC Communication Context, the Radio Links that should be pre-empted shall be indicated in the *RL Information* IE. The Radio Link(s) that should be pre-empted should be deleted by the CRNC.

8.3.16.3 Abnormal Conditions

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8.3.17 Bearer Re-arrangement

8.3.17.1 General

This procedure is started by the Node B when Bearers for the Node B Communication Context need to be rearranged.

The Node B may initiate the Bearer Rearrangement procedure at any time after establishing a Radio Link.

8.3.17.2 Successful Operation

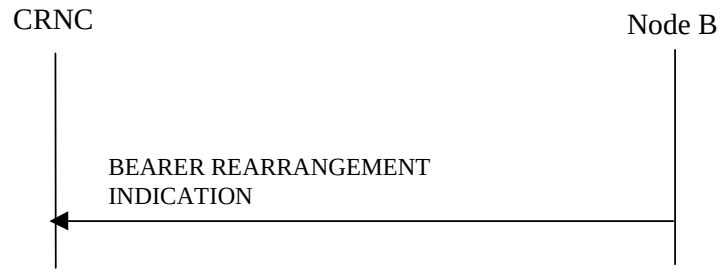


Figure 47C: Bearer Re-arrangement Indication, Successful Operation

When the Node B detects that a signaling bearer or a transport bearer or both need to be re-arranged for the Node B Communication Context, it shall send the BEARER REARRANGEMENT INDICATION message to the CRNC. The message shall use the Communication Control Port assigned for this Node B Communication Context.

If the signaling bearer for the control of the Node B Communication Context needs to be rearranged, the *Signalling Bearer Requested Indicator* IE shall be included in the BEARER REARRANGEMENT INDICATION message.

If the transport bearer for a transport channel needs to be rearranged, the ID of the transport channel for which a new transport bearer is required, shall be included in the BEARER REARRANGEMENT INDICATION message.

8.3.17.3 Abnormal Conditions

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8.3.18 Radio Link Activation

8.3.18.1 General

This procedure is used to activate or de-activate the DL transmission on the Uu interface regarding selected RLs.

8.3.18.2 Successful Operation



Figure 47D: Radio Link Activation procedure

This procedure is initiated by sending the RADIO LINK ACTIVATION COMMAND message from the CRNC to the Node B. The message shall use the Communication Control Port assigned for this Node B Communication Context. Upon reception, the Node B shall for each concerned RL:

- if the *Delayed Activation Update* IE indicates "Activate":
 - if the *Activation Type* IE equals "Unsynchronised":
 - [FDD - start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [16].]
 - [TDD - start transmission on the new RL immediately as specified in [16].]

- if the *Activation Type* IE equals "Synchronised":
 - [FDD - start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [16], however never before the CFN indicated in the *Activation CFN* IE.]
 - [TDD - start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in [16].]
- [FDD - the Node B shall apply the power level indicated in the *Initial DL Tx Power* IE to the transmission on each DL DPCH or on the F-DPCH of the RL when starting transmission until either UL synchronisation on the Uu interface is achieved for the RLS or power balancing is activated. During this period no inner loop power control shall be performed and, unless activated by the DL POWER CONTROL REQUEST message, no power balancing shall be performed. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and downlink power balancing adjustments (see subclause 8.3.7).]
- [TDD - the Node B shall apply the power level indicated in the *Initial DL Tx Power* IE to the transmission on each DL DPCH and on each Time Slot of the RL when starting transmission until the UL synchronisation on the Uu interface is achieved for the RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3).]
- [FDD - if the *Propagation Delay* IE and optionally the *Extended Propagation Delay* IE are included, the Node B may use this information to speed up the detection of UL synchronisation on the Uu interface.]
- [FDD - if the *First RLS Indicator* IE is included, it indicates if the concerned RL shall be considered part of the first RLS established towards this UE. The *First RLS Indicator* IE shall be used by the Node B together with the value of the *DL TPC Pattern 01 Count* IE which the Node B has received in the Cell Setup procedure, to determine the initial TPC pattern in the DL of the concerned RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.]

- if the *Delayed Activation Update* IE indicates "Deactivate":
 - stop DL transmission immediately, if the *Deactivation Type* IE equals "Unsynchronised", or at the CFN indicated by the *Deactivation CFN* IE, if the *Deactivation Type* IE equals "Synchronised".

8.3.18.3 Abnormal Conditions

[FDD - If the *Delayed Activation Update* IE is included in the RADIO LINK ACTIVATION COMMAND message, it indicates "Activate" and the *First RLS Indicator* IE is not included, the Node B shall initiate the Error Indication procedure.]

8.3.19 Radio Link Parameter Update

8.3.19.1 General

The Radio Link Parameter Update procedure is excuted by the Node B when the update of HS-DSCH [FDD - or E-DCH] related radio link parameter values are needed on the Node B side. With this procedure, Node B can suggest some HS-DSCH [FDD - or E-DCH] related Radio Link Parameter values to RNC.

The Radio Link Parameter Update procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.19.2 Successful Operation

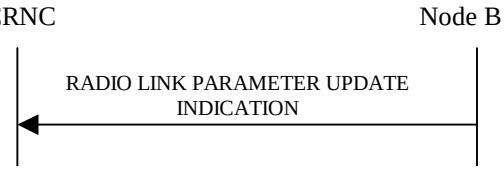


Figure 48: Radio Link Parameter Update Indication, Successful Operartion

The Node B initiates the Radio Link Parameter Update procedure by sending the RADIO LINK PARAMETER UPDATE INDICATION message to the CRNC. The message contains suggested value(s) of the HS-DSCH [FDD - or E-DCH] related parameter(s) that should be reconfigured on the radio link(s).

If the Node B needs to update HS-DSCH related parameters, the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including [FDD - *HS-DSCH FDD Update Information* IE] [TDD - *HS-DSCH TDD Update Information* IE].

If the Node B needs to allocate new HS-SCCH Codes, the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *HS-SCCH Code Change Indicator* IE.

[FDD - If the Node B needs to allocate new HS-PDSCH Codes, the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *HS-PDSCH Code Change Indicator* IE.]

[FDD - If the Node B needs to update the CQI Feedback Cycle k, CQI Repetition Factor, ACK-NACK Repetition Factor, CQI Power Offset, ACK Power Offset and/or NACK Power Offset, the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *CQI Feedback Cycle k* IE, *CQI Repetition Factor* IE, *ACK-NACK Repetition Factor* IE, *CQI Power Offset* IE, *ACK Power Offset* IE and/or *NACK Power Offset* IE.]

[TDD - If the Node B needs to update the TDD ACK-NACK Power Offset the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *TDD ACK-NACK Power Offset* IE.]

[FDD - If the Node B needs to update E-DCH related parameters, the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including the *E-DCH FDD Update Information* IE.]

[FDD - If the Node B needs to update the HARQ process allocation for non-scheduled transmission and/or HARQ process allocation for scheduled Transmission, the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including the *HARQ Process Allocation For 2ms Non-Scheduled Transmission* Grant IE for the concerned MAC-d Flows and/or *HARQ Process Allocation For 2ms Scheduled Transmission* Grant IE.]

8.3.19.3 Abnormal Conditions

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8.4 Error Handling Procedures

8.4.1 Error Indication

8.4.1.1 General

The Error Indication procedure is initiated by a node in order to report detected errors in one incoming message, provided they cannot be reported by an appropriate response message.

8.4.1.2 Successful Operation

When the conditions defined in subclause 10 are fulfilled, the Error Indication procedure is initiated by an ERROR INDICATION message sent from the receiving node.

In case the Error Indication procedure was triggered by a dedicated procedure, the following applies:

- When the ERROR INDICATION message is sent from a Node B to its CRNC, the *CRNC Communication Context ID* IE shall be included in the message if the corresponding Node B Communication Context, addressed by the *Node B Communication Context ID* IE which was received in the message triggering the Error Indication procedure, exists;

- When the ERROR INDICATION message is sent from a CRNC to a Node B, the *Node B Communication Context ID* IE shall be included in the message if the corresponding CRNC Communication Context, addressed by the *CRNC Communication Context ID* IE which was received in the message triggering the Error Indication procedure, exists;

- When the message triggering the Error Indication procedure is received in the Node B and there is no Node B Communication Context as indicated by the *Node B Communication Context ID* IE, the Node B shall include the unknown *Node B Communication Context ID* IE from the received message in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.

- When the message triggering the Error Indication procedure is received in the CRNC and there is no CRNC Communication Context as indicated by the *CRNC Communication Context ID* IE, the CRNC shall include the unknown *CRNC Communication Context ID* IE from the received message in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.

The ERROR INDICATION message shall include either the *Cause* IE, or the *Criticality Diagnostics* IE or both the *Cause* IE and the *Criticality Diagnostics* IE.

Typical cause values for the ERROR INDICATION message are:

Protocol Causes:

- Transfer Syntax Error
- Abstract Syntax Error (Reject)
- Abstract Syntax Error (Ignore and Notify)
- Message not Compatible with Receiver State
- Unspecified

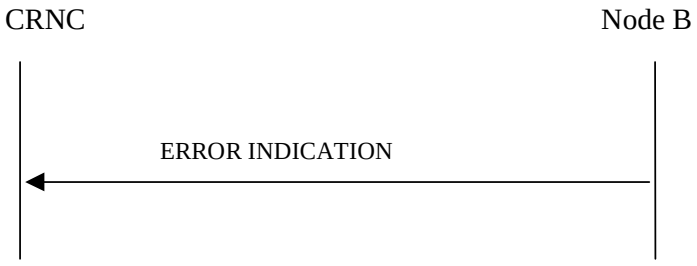


Figure 49: Error Indication procedure (Node B to CRNC): Successful Operation

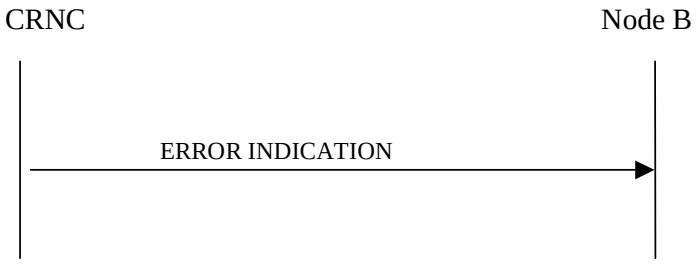


Figure 50: Error Indication procedure (CRNC to Node B), Successful Operation

8.4.1.3 Abnormal Conditions

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9 Elements for NBAP communication

9.1 Message Functional Definition and Contents

9.1.1 General

Subclause 9.1 presents the contents of NBAP messages in tabular format. The corresponding ASN.1 definition is presented in subclause 9.3. In case there is contradiction between the tabular format in subclause 9.1 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional IEs, where the tabular format shall take precedence.

NOTE: The messages have been defined in accordance to the guidelines specified in ref. [26].

9.1.2 Message Contents

9.1.2.1 Presence

An information element can be of the following types:

M	IEs marked as Mandatory (M) shall always be included in the message.
O	IEs marked as Optional (O) may or may not be included in the message.
C	IEs marked as Conditional (C) shall be included in a message only if the condition is satisfied. Otherwise the IE shall not be included.

In case of an Information Element group, the group is preceded by a name for the info group (in bold). It is also indicated how many times a group may be repeated in the message and whether the group is conditional. The presence field of the Information Elements inside one group defines if the Information Element is mandatory, optional or conditional if the group is present.

9.1.2.2 Criticality

Each Information Element or Group of Information Elements may have a criticality information applied to it. Following cases are possible:

–	No criticality information is applied explicitly.
YES	Criticality information is applied. "YES" is usable only for non-repeatable information elements.
GLOBAL	The information element and all its repetitions together have one common criticality information. "GLOBAL" is usable only for repeatable information elements.
EACH	Each repetition of the information element has its own criticality information. It is not allowed to assign different criticality values to the repetitions. "EACH" is usable only for repeatable information elements.

9.1.2.3 Range

The Range column indicates the allowed number of copies of repetitive IEs.

9.1.2.4 Assigned Criticality

This column provides the actual criticality information as defined in subclause 10.3.2, if applicable.

9.1.3 COMMON TRANSPORT CHANNEL SETUP REQUEST

9.1.3.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
CHOICE *Common Physical Channel To Be Configured*	M				YES	ignore
>*Secondary CCPCH*						
>>Secondary CCPCH		*1*			–	
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>FDD SCCPCH Offset	M		9.2.2.15	Corresponds to [7]: $S\text{-}CCPCH,k$	–	
>>>DL Scrambling Code	C-PCH		9.2.2.13		–	
>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>TFCS	M		9.2.1.58	For the DL.	–	
>>>Secondary CCPCH Slot Format	M		9.2.2.43	If *Extended Secondary CCPCH Slot Format* IE is present, this IE shall be ignored	–	
>>>TFCI Presence	C-SlotFormat		9.2.1.57	Refer to TS [7]	–	
>>>Multiplexing Position	M		9.2.2.23		–	
>>>Power Offset Information		*1*			–	
>>>>PO1	M		Power Offset 9.2.2.29	Power offset for the TFCI bits	–	
>>>>PO3	M		Power Offset 9.2.2.29	Power offset for the pilot bits	–	
>>>STTD Indicator	M		9.2.2.48		–	
>>>FACH Parameters		*0..<maxnoofFACHs>*			GLOBAL	reject
>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>Transport Format Set	M		9.2.1.59	For the DL.	–	
>>>>ToAWS	M		9.2.1.61		–	
>>>>ToAWE	M		9.2.1.60		–	
>>>>Max FACH Power	M		DL Power 9.2.1.21	Maximum allowed power on the FACH.	–	
>>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment	YES	ignore

				with ALCAP.		
>>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>Broadcast Reference	O		9.2.1.5C		YES	ignore
>>>>IP Multicast Indication	O		9.2.1.108		YES	ignore
>>>PCH Parameters		*0..1*			YES	reject
>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>Transport Format Set	M		9.2.1.59	For the DL.	–	
>>>>ToAWS	M		9.2.1.61		–	
>>>>ToAWE	M		9.2.1.60		–	
>>>>PCH Power	M		DL Power 9.2.1.21		–	
>>>>PICH Parameters		*1*			–	
>>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>>PICH Power	M		9.2.1.49A		–	
>>>>>PICH Mode	M		9.2.2.26	Number of PI per frame	–	
>>>>>STTD Indicator	M		9.2.2.48		–	
>>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>MICH Parameters		*0..1*			YES	reject
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>MICH Power	M		PICH		–	

			Power 9.2.1.49A			
>>>>MICH Mode	M		9.2.2.21D	Number of NI per frame	–	
>>>>STTD Indicator	M		9.2.2.48		–	
>>>FDD S-CCPCH Frame Offset	O		9.2.2.14B		YES	reject
>>>Modulation Power Offset	O		9.2.2.91	Used for MBSFN operation only	YES	reject
>>>Extended Secondary CCPCH Slot Format	O		9.2.2.92	Used for MBSFN operation only	YES	reject
>PRACH						
>>PRACH		*1*			–	
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>Scrambling Code Number	M		9.2.2.42		–	
>>>TFCS	M		9.2.1.58	For the UL.	–	
>>>Preamble Signatures	M		9.2.2.31		–	
>>>Allowed Slot Format Information		*1..<maxnoofSlotFormatsPRACH>*			–	
>>>>RACH Slot Format	M		9.2.2.37		–	
>>>RACH Sub Channel Numbers	M		9.2.2.38		–	
>>>Puncture Limit	M		9.2.1.50	For the UL	–	
>>>Preamble Threshold	M		9.2.2.32		–	
>>>RACH Parameters		*1*			YES	reject
>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>Transport Format Set	M		9.2.1.59	For the UL.	–	
>>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>AICH Parameters		*1*			–	
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>AICH Transmission Timing	M		9.2.2.1		–	
>>>>FDD DL	M		9.2.2.14		–	

Channelisation Code Number						
>>>>AICH Power	M		9.2.2.D		–	
>>>>STTD Indicator	M		9.2.2.48		–	
>Not Used			NULL	This choice shall not be used. Reject procedure if received.		

Condition	Explanation
SlotFormat	The IE shall be present if the *Secondary CCPCH Slot Format* IE is set to any of the values from 8 to 17.
PCH	The IE shall be present if the *PCH Parameters* IE is not present.

Range Bound	Explanation
maxnoofFACHs	Maximum number of FACHs that can be defined on a Secondary CCPCH
maxnoofSlotFormatsPRACH	Maximum number of SF for a PRACH

9.1.3.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
CHOICE *Common Physical Channel To Be Configured*	M				YES	ignore
>Secondary CCPCHs						
>>SCCPCH CCTrCH ID	M		CCTrCH ID 9.2.3.3	For DL CCTrCH supporting one or several Secondary CCPCHs	–	
>>TFCS	M		9.2.1.58	For DL CCTrCH supporting one or several Secondary CCPCHs	–	
>>TFCI Coding	M		9.2.3.22		–	
>>Puncture Limit	M		9.2.1.50		–	
>>CHOICE *HCR or LCR or 7.68 Mcps*	M			See note 1 below	–	
>>>3.84Mcps TDD					–	
>>>>Secondary CCPCH		*1..<maxnoofSCCPCHs>*		See note 2 below	GLOBAL	reject
>>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>>TDD Channelisation Code	M		9.2.3.19		–	
>>>>>Time Slot	M		9.2.3.23		–	
>>>>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>>>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>>>>Repetition Period	M		9.2.3.16		–	
>>>>>Repetition Length	M		9.2.3.15		–	
>>>>>SCCPCH Power	M		DL Power 9.2.1.21		–	
>>>>>TFCI Presence	O		9.2.1.57		YES	notify
>>>1.28Mcps TDD					–	
>>>>Secondary CCPCH LCR		*1..<maxnoofSCCPCHsLCR>*		See note 2 below	GLOBAL	reject
>>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>>TDD Channelisation Code	M		9.2.3.19a		–	

LCR						
>>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>>Midamble Shift LCR	M		9.2.3.7A	For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, the NodeB shall ignore the contents of this IE.	–	
>>>>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>>>>Repetition Period	M		9.2.3.16		–	
>>>>>Repetition Length	M		9.2.3.15		–	
>>>>>SCCPCH Power	M		DL Power 9.2.1.21		–	
>>>>>SCCPCH Time Slot Format LCR	M		TDD DL DPCH Time Slot Format LCR 9.2.3.19D		–	
>>>>>MBSFN Special Time Slot LCR	O		Time Slot LCR Extension 9.2.3.24B	Only for 1.28 Mcps TDD MBSFN only mode, this IE indicates the MBSFN Special Time Slot [19]. The *Time Slot LCR* IE for the Secondary CCPCH LCR shall be ignored if this IE appears.	YES	ignore
>>>7.68 Mcps TDD					–	
>>>>Secondary CCPCH 7.68 Mcps		*1..<maxnoofSCCPCHs768>*			GLOBAL	reject
>>>>>Common Physical Channel ID 768Mcps	M		9.2.3.33		–	
>>>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>>>>>Time Slot	M		9.2.3.23		–	
>>>>>TFCI Presence	O		9.2.1.57		–	
>>>>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>>>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>>>>Repetition	M		9.2.3.16		–	

Period						
>>>>>Repetition Length	M		9.2.3.15		–	
>>>>>SCCPCH Power	M		DL Power 9.2.1.21		–	
>>FACH Parameters		*0..<maxnoofFACHs>*			GLOBAL	reject
>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>FACH CCTrCH ID	M		CCTrCH ID 9.2.3.3		–	
>>>Transport Format Set	M		9.2.1.59	For the DL.	–	
>>>ToAWS	M		9.2.1.61		–	
>>>ToAWE	M		9.2.1.60		–	
>>>Max FACH Power	O		DL Power 9.2.1.21	Applicable to 1.28Mcps TDD only	YES	reject
>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>Broadcast Reference	O		9.2.1.5C		YES	ignore
>>>IP Multicast Indication	O		9.2.1.108		YES	ignore
>>PCH Parameters		*0..1*			YES	reject
>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>PCH CCTrCH ID	M		CCTrCH ID 9.2.3.3		–	
>>>Transport Format Set	M		9.2.1.59	For the DL.	–	
>>>ToAWS	M		9.2.1.61		–	
>>>ToAWE	M		9.2.1.60		–	
>>>CHOICE *HCR or LCR or 7.68Mcps*	M			See note 1 below	–	
>>>>3.84Mcps TDD					–	
>>>>>PICH Parameters		*0..1*			YES	reject
>>>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>>>TDD Channelisation Code	M		9.2.3.19		–	
>>>>>>Time Slot	M		9.2.3.23		–	

>>>>>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>>>>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>>>>>Repetition Period	M		9.2.3.16		–	
>>>>>>Repetition Length	M		9.2.3.15		–	
>>>>>>Paging Indicator Length	M		9.2.3.8		–	
>>>>>>PICH Power	M		9.2.1.49A		–	
>>>>1.28Mcps TDD					–	
>>>>>PICH Parameters LCR		*0..1*			YES	reject
>>>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>>>TDD Channelisation Code LCR	M		9.2.3.19a		–	
>>>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>>>Midamble Shift LCR	M		9.2.3.7A		–	
>>>>>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>>>>>Repetition Period	M		9.2.3.16		–	
>>>>>>Repetition Length	M		9.2.3.15		–	
>>>>>>Paging Indicator Length	M		9.2.3.8		–	
>>>>>>PICH Power	M		9.2.1.49A		–	
>>>>>>Second TDD Channelisation Code LCR	M		TDD Channelisation Code LCR 9.2.3.19a		–	
>>>>>>TSTD Indicator	O		9.2.1.64		YES	reject
>>>>7.68Mcps TDD					–	
>>>>>PICH Parameters		*0..1*			YES	reject
>>>>>Common Physical Channel ID 768Mcps	M		9.2.3.33		–	
>>>>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>>>>>>Time Slot	M		9.2.3.23		–	
>>>>>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>>>>>TDD	M		9.2.3.20		–	

Physical Channel Offset						
>>>>>>Repetition Period	M		9.2.3.16		–	
>>>>>>Repetition Length	M		9.2.3.15		–	
>>>>>>Paging Indicator Length	M		9.2.3.8		–	
>>>>>>PICH Power	M		9.2.1.49A		–	
>>>PCH Power	O		DL Power 9.2.1.21	Applicable to 1.28Mcps TDD only	YES	reject
>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>TSTD Indicator	O		9.2.1.64		YES	reject
>>MICH Parameters		*0..1*			YES	reject
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>Notification Indicator Length	M		9.2.3.7Aa		–	
>>>MICH Power	M		PICH Power 9.2.1.49A		–	
>>>CHOICE *HCR or LCR or 7.68 Mcps*	M				–	
>>>>3.84Mcps TDD						
>>>>>MICH Parameters HCR		*1*			–	
>>>>>>TDD Channelisation Code	M		9.2.3.19		–	
>>>>>>Time Slot	M		9.2.3.23		–	
>>>>>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>>>1.28Mcps TDD						
>>>>>MICH Parameters LCR		*1*			–	
>>>>>>TDD Channelisation	M		9.2.3.19a		–	

Code LCR						
>>>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>>>Midamble Shift LCR	M		9.2.3.7A	For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, the NodeB shall ignore the contents of this IE.	–	
>>>>>>Second TDD Channelisation Code LCR	M		TDD Channelisation Code LCR 9.2.3.19a		–	
>>>>>>TSTD Indicator	M		9.2.1.64		–	
>>>>>>MBSFN Special Time Slot LCR	O		Time Slot LCR Extension 9.2.3.24B	Only for 1.28 Mcps TDD MBSFN only mode, this IE indicates the MBSFN Special Time Slot [19]. The *Time Slot LCR* IE for the MICH parameters LCR shall be ignored if this IE appears.	YES	ignore
>>>>7.68 Mcps TDD						
>>>>>MICH Parameters 7.68 Mcps		*1*			–	
>>>>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>>>>>>Time Slot	M		9.2.3.23		–	
>>>>>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>Modulation	O		9.2.1.87	Applicable to 3.84Mcps TDD and 7.68Mcps TDD in MBSFN operation only	YES	reject
>>Time Slot Configuration LCR		*0..7*		Applicable to 1.28Mcps TDD for MBSFN. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	GLOBAL	reject
>>>Time Slot LCR	M		9.2.3.24A		–	
>>>Time Slot Parameter ID	M		Cell Parameter ID 9.2.3.4		–	
>>UARFCN	O		9.2.1.65	Corresponds to	YES	reject

				Nt [15] This IE indicates the frequency of the Secondary Frequency on which SCCPCH is configured. Applicable to 1.28Mcps TDD MBSFN. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.		
>PRACH						
>>CHOICE *HCR or LCR or 7.68 Mcps*	M			See note 1 below	–	
>>>3.84Mcps TDD					–	
>>>>PRACH		*1*			YES	reject
>>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>>TFCS	M		9.2.1.58		–	
>>>>>Time Slot	M		9.2.3.23		–	
>>>>>TDD Channelisation Code	M		9.2.3.19		–	
>>>>>Max PRACH Midamble Shifts	M		9.2.3.6		–	
>>>>>PRACH Midamble	M		9.2.3.14		–	
>>>>>RACH		*1*			YES	reject
>>>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>>>Transport Format Set	M		9.2.1.59	For the UL	–	
>>>>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>1.28Mcps TDD					–	
>>>>PRACH LCR		*1..<maxnoofPRACHLCRs>*			GLOBAL	reject
>>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>>TFCS	M		9.2.1.58		–	

>>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>>TDD Channelisation Code LCR	M		9.2.3.19a		–	
>>>>>Midamble Shift LCR	M		9.2.3.7A		–	
>>>>>RACH		*1*			YES	reject
>>>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>>>Transport Format Set	M		9.2.1.59	For the UL	–	
>>>>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>>UARFCN	O		9.2.1.65	Corresponds to Nt [15]. This IE indicates the frequency of the secondary frequency on which PRACH to be set up. See note 3 below.	YES	reject
>>>7.68 Mcps TDD					–	
>>>>PRACH		*1*			YES	reject
>>>>>Common Physical Channel ID 768Mcps	M		9.2.3.33		–	
>>>>>TFCS	M		9.2.1.58		–	
>>>>>Time Slot	M		9.2.3.23		–	
>>>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>>>>>Max PRACH Midamble Shifts	M		9.2.3.6		–	
>>>>>PRACH Midamble	M		9.2.3.14		–	
>>>>>RACH		*1*			YES	reject
>>>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>>>Transport	M		9.2.1.59	For the UL	–	

Format Set						
>>>>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>FPACH		*0..1*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>TDD Channelisation Code LCR	M		9.2.3.19a		–	
>>>Time Slot LCR	M		9.2.3.24A		–	
>>>Midamble Shift LCR	M		9.2.3.7A		–	
>>>Max FPACH Power	M		9.2.3.5E		–	
>>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] This IE indicates the frequency of Secondary Frequency on which FPACH to be set up.	YES	reject
>PLCCH				1.28 Mcps TDD only		
>>Max PLCCH Power	M		DL Power 9.2.1.21		–	
>>Common Physical Channel ID	M		9.2.1.13		–	
>>TDD Channelisation Code	M		9.2.3.19		–	
>>Time Slot LCR	M		9.2.3.24A		–	
>>Midamble Shift LCR	M		9.2.3.7A		–	
>E-RUCCH				3.84Mcps TDD only		
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Time Slot	M		9.2.3.23		–	
>>TDD Channelisation Code	M		9.2.3.19		–	
>>Max E-RUCCH Midamble Shifts	M		9.2.3.44		–	
>>E-RUCCH Midamble	M		9.2.3.14		–	
>E-RUCCH 7.68Mcps				7.68Mcps TDD only		

>>Common Physical Channel ID 7.68Mcps	M		9.2.3.33		–	
>>Time Slot	M		9.2.3.23		–	
>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>>Max E-RUCCH Midamble Shifts	M		9.2.3.44		–	
>>E-RUCCH Midamble	M		9.2.3.14		–	

Note 1: This information element is a simplified representation of the ASN.1. The choice is in reality performed through the use of a ProtocolIE-Single-Container and a ProtocolExtensionContainer within the ASN.1.

Note 2: This information element is a simplified representation of the ASN.1. Repetitions 1 to 8 and repetitions 9 to maxnoofSCCPCHs / maxnoofSCCPCHsLCR are represented by separate ASN.1 structures.

Note 3: The configured PRACH resources on secondary frequency shall only be used for E-DCH random access.

Range Bound	Explanation
maxnoofSCCPCHs	Maximum number of Secondary CCPCHs per CCTrCH for 3.84Mcps TDD
maxnoofSCCPCHsLCR	Maximum number of Secondary CCPCHs per CCTrCH for 1.28Mcps TDD
maxnoofSCCPCHs768	Maximum number of Secondary CCPCHs per CCTrCH for 7.68 Mcps TDD
maxnoofFACHs	Maximum number of FACHs that can be defined on a Secondary CCPCH
maxnoofPRACHLCRs	Maximum number of PRACHs LCR that can be defined on a RACH for 1.28Mcps TDD

9.1.4 COMMON TRANSPORT CHANNEL SETUP RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
FACH Parameters Info		*0..<maxnoofFACHs>*		The FACH Parameters may be combined with PCH Parameters	GLOBAL	ignore
>FACH Parameters	M		Common Transport Channel Information Response 9.2.1.14A		–	
PCH Parameters	O		Common Transport Channel Information Response 9.2.1.14A	The PCH Parameters may be combined with FACH Parameters	YES	ignore
RACH Parameters	O		Common Transport Channel Information Response 9.2.1.14A	The RACH Parameters shall not be combined with FACH Parameters or PCH Parameters	YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

Range Bound	Explanation
maxnoofFACHs	Maximum number of FACHs that can be defined on a Secondary CCPCH[FDD] / a group of Secondary CCPCHs [TDD]

9.1.5 COMMON TRANSPORT CHANNEL SETUP FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	–
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	–
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.6 COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST

9.1.6.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
CHOICE *Common Physical Channel To Be Configured*	M				YES	reject
>Secondary CCPCH						
>>FACH Parameters		*0..<maxFACHCell>*			GLOBAL	reject
>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>Max FACH Power	O		DL Power 9.2.1.21	Maximum allowed power on the FACH.	–	
>>>ToAWS	O		9.2.1.61		–	
>>>ToAWE	O		9.2.1.60		–	
>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer reconfiguration with ALCAP.	YES	ignore
>>PCH Parameters		*0..1*			YES	reject
>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>PCH Power	O		DL Power 9.2.1.21	Power to be used on the PCH.	–	
>>>ToAWS	O		9.2.1.61		–	
>>>ToAWE	O		9.2.1.60		–	
>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer reconfiguration with ALCAP.	YES	ignore
>>PICH Parameters		*0..1*			YES	reject
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>PICH Power	O		9.2.1.49A		–	
>>MICH Parameters		*0..1*			YES	reject
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>MICH Power	O		PICH Power 9.2.1.49A		–	
>PRACH						
>>PRACH Parameters		*0..<maxPRACHCell>*			GLOBAL	reject

>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>Preamble Signatures	O		9.2.2.31		–	
>>>Allowed Slot Format Information		*0..<maxnoofSlotFormatsPRACH>*			–	
>>>>RACH Slot Format	M		9.2.2.37		–	
>>>RACH Sub Channel Numbers	O		9.2.2.38		–	
>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer reconfiguration with ALCAP.	YES	ignore
>>AICH Parameters		*0..<maxPRACHCell>*			GLOBAL	reject
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>AICH Power	O		9.2.2.D		–	
>Not Used			NULL	This choice shall not be used. Reject procedure if received.		

Range Bound	Explanation
maxFACHCell	Maximum number of FACHs that can be defined in a Cell
maxPRACHCell	Maximum number of PRACHs and AICHs that can be defined in a Cell
maxnoofSlotFormatsPRACH	Maximum number of SF for a PRACH

9.1.6.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
Secondary CCPCH Parameters		*0..1*			YES	reject

>CCTrCH ID	M		9.2.3.3	For DL CCTrCH supporting one or several Secondary CCPCHs	–	
>Secondary CCPCHs To Be Configured		*0..<maxnoofSCCPCHs>*		See note 1 below	GLOBAL	reject
>>Common Physical Channel ID	M		9.2.1.13		–	
>>SCCPCH Power	O		DL power 9.2.1.21		–	
PICH Parameters		*0..1*			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>PICH Power	O		9.2.1.49A		–	
FACH Parameters		*0..<maxnoofFACHs>*			GLOBAL	reject
>Common Transport Channel ID	M		9.2.1.14		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60			
>Max FACH Power	O		DL Power 9.2.1.21	Applicable to 1.28Mcps TDD only	YES	reject
>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer reconfiguration with ALCAP.	YES	ignore
PCH Parameters		*0..1*			YES	reject
>Common Transport Channel ID	M		9.2.1.14		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
>PCH Power	O		DL Power 9.2.1.21	Applicable to 1.28Mcps TDD only	YES	reject
>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer reconfiguration with ALCAP.	YES	ignore
FPACH Parameters		*0..1*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD..	YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Max FPACH Power	O		9.2.3.5E		–	
MICH Parameters		*0..1*			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>MICH Power	O		PICH Power 9.2.1.49A		–	
PLCCH Parameters		*0..1*		Applicable to 1.28Mcps TDD only	YES	ignore

>Max PLCCH Power	O		DL Power 9.2.1.21		–	
Secondary CCPCH Parameters 7.68Mcps		*0..1*		Applicable to 7.68 Mcps TDD only	YES	reject
>CCTrCH ID	M		9.2.3.3	For DL CCTrCH supporting one or several Secondary CCPCHs	–	
>Secondary CCPCHs To Be Configured		*0..<maxnoofSCCPCHs768>*			–	
>>Common Physical Channel ID 7.68Mcps	M		9.2.3.33		–	
>>SCCPCH Power	O		DL power 9.2.1.21		–	
PICH Parameters 7.68Mcps		*0..1*		Applicable to 7.68 Mcps TDD only	YES	reject
>Common Physical Channel ID 7.68Mcps	M		9.2.3.33		–	
>PICH Power	O		9.2.1.49A		–	
MICH Parameters 7.68Mcps		*0..1*		Applicable to 7.68Mcps TDD only	YES	reject
>Common Physical Channel ID 7.68Mcps	M		9.2.3.33		–	
>MICH Power	O		PICH Power 9.2.1.49A		–	
UpPCH Parameters		*0..1*		Applicable to 1.28Mcps TDD only	YES	reject
>UpPCH Position LCR	O		9.2.3.4Q	This position of UpPCH. For a multi-frequency cell, if this IE is not included in this message, UpPCH in secondary frequency indicated by "UARFCN" shall be deleted.	–	
>UARFCN	O		9.2.1.65	Mandatory for 1.28Mcps TDD when using multiple frequencies. Corresponds to Nt [15].	–	

Note 1: This information element is a simplified representation of the ASN.1. Repetitions 1 to 8 and repetitions 9 to maxnoofSCCPCHs are represented by separate ASN.1 structures. Furthermore, maxnoofSCCPCHs has different values in the ASN.1 for each of the two TDD options.

Range Bound	Explanation
maxnoofSCCPCHs	Maximum number of SCCPCHs that can be repeated in a Cell
maxnoofFACHs	Maximum number of FACHs that can be repeated in a Cell
maxnoofSCCPCHs768	Maximum number of SCCPCHs that can be repeated in a Cell at 7.68Mcps

9.1.7 COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.8 COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.9 COMMON TRANSPORT CHANNEL DELETION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Common Physical Channel ID	M		9.2.1.13	Indicates the Common Physical Channel for which the Common Transport Channels (together with the Common Physical Channel) shall be deleted.	YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
Common Physical Channel ID 7.68Mcps	O		9.2.3.33	Included at 7.68 Mcps when the physical channel ID exceeds the range of " Common Physical Channel ID"	YES	reject

9.1.10 COMMON TRANSPORT CHANNEL DELETION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.11 BLOCK RESOURCE REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Blocking Priority Indicator	M		9.2.1.5		YES	reject
Shutdown Timer	C-BlockNormal		9.2.1.56		YES	reject

Condition	Explanation
BlockNormal	The IE shall be present if the *Blocking Priority Indicator* IE indicates "Normal Priority".

9.1.12 BLOCK RESOURCE RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.13 BLOCK RESOURCE FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.14 UNBLOCK RESOURCE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	ignore

9.1.15 AUDIT REQUIRED INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	

9.1.16 AUDIT REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Start Of Audit Sequence Indicator	M		9.2.1.56B		YES	reject

9.1.17 AUDIT RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
End Of Audit Sequence Indicator	M		9.2.1.29A		YES	ignore
Cell Information		*0..<maxCellinNodeB>*			EACH	ignore
>C-ID	M		9.2.1.9		–	
>Configuration Generation ID	M		9.2.1.16		–	
>Resource Operational State	M		9.2.1.52		–	
>Availability Status	M		9.2.1.2		–	
>Local Cell ID	M		9.2.1.38	The local cell that the cell is configured on	–	
>Primary SCH Information	O		Common Physical Channel Status Information 9.2.1.13A	Applicable to FDD only	YES	ignore
>Secondary SCH Information	O		Common Physical Channel Status Information 9.2.1.13A	Applicable to FDD only	YES	ignore
>Primary CPICH Information	O		Common Physical Channel Status Information 9.2.1.13A	Applicable to FDD only	YES	ignore
>Secondary CPICH Information		*0..<maxSCPICHCell>*		Applicable to FDD only	EACH	ignore
>>Secondary CPICH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>Primary CCPCH Information	O		Common Physical Channel Status Information 9.2.1.13A		YES	ignore
>BCH Information	O		Common Transport Channel Status Information 9.2.1.14B		YES	ignore

>Secondary CCPCH Information		*0..<maxSCCPCHCell>*		See note 1 below	EACH	ignore
>>Secondary CCPCH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>PCH Information	O		Common Transport Channel Status Information 9.2.1.14B		YES	ignore
>PICH Information	O		Common Physical Channel Status Information 9.2.1.13A		YES	ignore
>FACH Information		*0..<maxFACHCell>*			EACH	ignore
>>FACH Individual Information	M		Common Transport Channel Status Information 9.2.1.14B		–	
>PRACH Information		*0..<maxPRACHCell>*			EACH	ignore
>>PRACH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>RACH Information		*0..<maxRACHCell>*			EACH	ignore
>>RACH Individual Information	M		Common Transport Channel Status Information 9.2.1.14B		–	
>AICH Information		*0..<maxPRACHCell>*		Applicable to FDD only	EACH	ignore
>>AICH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>Not Used 1	O		NULL	This item shall not be used. Ignore if received.	–	
>Not Used 2	O		NULL	This item shall	–	

				not be used. Ignore if received.		
>Not Used 3	O		NULL	This item shall not be used. Ignore if received.	–	
>Not Used 4	O		NULL	This item shall not be used. Ignore if received.	–	
>SCH Information	O		Common Physical Channel Status Information 9.2.1.13A	TDD Sync Channel Applicable to 3.84Mcps TDD only	YES	ignore
>FPACH Information		*0..<maxFPACHCell>*		Applicable to 1.28Mcps TDD only	EACH	ignore
>>FPACH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>DwPCH Information	O		Common Physical Channel Status Information 9.2.1.13A	Applicable to 1.28Mcps TDD only	YES	ignore
>HS-DSCH Resources Information		*0..<maxFrequencyinCell>*		See note 2 below	EACH	ignore
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Applicable to 1.28Mcps TDD when using multiple frequencies.	YES	ignore
>MICH Information	O		Common Physical Channel Status Information 9.2.1.13A		YES	ignore
>E-DCH Resources Information		*0..<maxFrequencyinCell>*		See note 2 below	EACH	ignore
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Applicable to 1.28Mcps TDD	YES	ignore

				when using multiple frequencies.		
>PLCCH Information		*0..<maxPLCCHCell>*		Applicable to 1.28Mcps TDD only	EACH	ignore
>>PLCCH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>Primary CCPCH Information 7.68Mcps	O		Common Physical Channel Status Information 7.68 Mcps 9.2.3.36		YES	ignore
>Secondary CCPCH Information 7.68Mcps		*0..<maxSCCPCHCell768>*			EACH	ignore
>>Secondary CCPCH Individual Information 7.68 Mcps	M		Common Physical Channel Status Information 7.68 Mcps 9.2.3.36		–	
>PICH Information 7.68Mcps	O		Common Physical Channel Status Information 7.68 Mcps 9.2.3.36		YES	ignore
>PRACH Information 7.68Mcps		*0..<maxPRACHCell>*			EACH	ignore
>>PRACH Individual Information 7.68Mcps	M		Common Physical Channel Status Information 7.68 Mcps 9.2.3.36		–	
>SCH Information 7.68Mcps	O		Common Physical Channel Status Information 7.68 Mcps 9.2.3.36	TDD Sync Channel Applicable to 7.68Mcps TDD only	YES	ignore
>MICH Information 7.68Mcps	O		Common Physical Channel Status Information 7.68 Mcps 9.2.3.36		YES	ignore
>E-RUCCH Information		*0..<maxE-RUCCHCell>*		3.84Mcps TDD only	EACH	ignore
>>E-RUCCH Individual Information	M		Common		–	

			Physical Channel Status Information 9.2.1.13A			
>E-RUCCH Information 7.68Mcps		*0..<maxE-RUCCHCell>*		7.68Mcps TDD only	EACH	ignore
>>E-RUCCH Individual Information 7.68Mcps	M		Common Physical Channel Status Information 7.68 Mcps 9.2.3.36		–	
>UARFCN Information LCR		*0..<maxFrequencyinCell>*		Applicable to 1.28Mcps TDD when using multiple frequencies.	EACH	ignore
>>UARFCN	M		9.2.1.65	Corresponds to Nt [15]	–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>UpPCH Information LCR		*0..<maxFrequencyinCell>*		Applicable to 1.28Mcps TDD only.	EACH	ignore
>>UARFCN	O		9.2.1.65	Mandatory for 1.28Mcps TDD when using multiple frequencies. Corresponds to Nt [15]	–	
>>UpPCH Position LCR	M		9.2.3.4Q		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
Communication Control Port Information		*0..<maxCCPinNodeB>*			EACH	ignore
>Communication Control Port ID	M		9.2.1.15		–	
>Resource Operational State	M		9.2.1.52		–	
>Availability Status	M		9.2.1.2		–	
Local Cell Information		*0..<maxLocalCellinNode B>*			EACH	ignore
>Local Cell ID	M		9.2.1.38		–	
>DL Or Global Capacity Credit	M		9.2.1.20B		–	
>UL Capacity Credit	O		9.2.1.65A		–	
>Common Channels Capacity Consumption Law	M		9.2.1.9A		–	
>Dedicated Channels	M		9.2.1.20A		–	

Capacity Consumption Law						
>Maximum DL Power Capability	O		9.2.1.39		–	
>Minimum Spreading Factor	O		9.2.1.47		–	
>Minimum DL Power Capability	O		9.2.1.46A		–	
>Local Cell Group ID	O		9.2.1.37A		–	
>Reference Clock Availability	O		9.2.3.14A	TDD only	YES	ignore
>Power Local Cell Group ID	O		9.2.1.49B		YES	ignore
>HSDPA Capability	O		9.2.1.31Ga		YES	ignore
>E-DCH Capability	O		9.2.1.70		YES	ignore
>E-DCH TTI2ms Capability	C-EDCHCapability		9.2.2.13V	FDD only	YES	ignore
>E-DCH SF Capability	C-EDCHCapability		9.2.2.13W	FDD only	YES	ignore
>E-DCH HARQ Combining Capability	C-EDCHCapability		9.2.2.13X	FDD only	YES	ignore
>E-DCH Capacity Consumption Law	O		9.2.2.13Ja	FDD only	YES	ignore
>F-DPCH Capability	O		9.2.2.16a	FDD only	YES	ignore
>E-DCH TDD Capacity Consumption Law	O		9.2.3.60	TDD only	YES	ignore
>Continuous Packet Connectivity DTX-DRX Capability	O		9.2.2.64	FDD only	YES	ignore
>Max UE DTX Cycle	C-DTX-DRXCapability		9.2.2.95	FDD only	YES	ignore
>Continuous Packet Connectivity HS-SCCH less Capability	O		9.2.2.65	FDD only	YES	ignore
>MIMO Capability	O		9.2.2.70	FDD only	YES	ignore
>SixtyfourQAM DL Capability	O		9.2.2.74	FDD only	YES	ignore
>MBMS Capability	O		9.2.1.86		YES	ignore
>Enhanced FACH Capability	O		9.2.2.86	FDD only	YES	ignore
>Enhanced PCH Capability	C-EnhancedFACHCapability		9.2.2.87	FDD only	YES	ignore
>SixteenQAM UL Capability	O		9.2.2.88	FDD only	YES	ignore
>HS-DSCH MAC-d PDU Size Capability	O		9.2.1.31IC		YES	ignore
>MBSFN Only Mode Capability	O		9.2.3.71	1.28Mcps TDD only	YES	ignore
>F-DPCH Slot Format Capability	O		9.2.2.94	FDD only	YES	ignore
Local Cell Group Information		*0..<maxLocalCellinNode B>*			EACH	ignore
>Local Cell Group ID	M		9.2.1.37A		–	
>DL Or Global Capacity Credit	M		9.2.1.20B		–	
>UL Capacity Credit	O		9.2.1.65A		–	
>Common Channels Capacity Consumption Law	M		9.2.1.9A		–	
>Dedicated Channels Capacity Consumption Law	M		9.2.1.20A		–	
>E-DCH Capacity Consumption Law	O		9.2.2.13Ja	FDD only	YES	ignore

>E-DCH TDD Capacity Consumption Law	O		9.2.3.60	TDD only	YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
Power Local Cell Group Information		*0..<maxLocalCellinNode B>*			EACH	ignore
>Power Local Cell Group ID	M		9.2.1.49B		–	
>Maximum DL Power Capability	M		9.2.1.39		–	

Note 1: This information element is a simplified representation of the ASN.1. [TDD - Repetitions 1 to 8 and repetitions 9 to maxSCCPCHCell are represented by separate ASN.1 structures.] Furthermore, maxSCCPCHCell has different values in the ASN.1 for FDD and for each of the two TDD options.

Note 2: For 1.28Mcps TDD when using multiple frequencies, this information element for Repetition 1 and repetition 2 through maxFrequencyinCell are represented by respective ASN.1 structures with different criticalities.

Condition	Explanation
EDCHCapability	The IE shall be present if the *E-DCH Capability* IE is set to "E-DCH Capable".
EnhancedFACHCapability	The IE shall be present if the *Enhanced FACH Capability* IE is set to "Enhanced FACH Capable".
DTX-DRXCapability	The IE shall be present if the *Continuous Packet Connectivity DTX-DRX Capability* IE is present and set to "Continuous Packet Connectivity DTX-DRX Capable".

Range Bound	Explanation
maxCellinNode B	Maximum number of Cells that can be configured in Node B
maxCCPinNode B	Maximum number of Communication Control Ports that can exist in the Node B
maxLocalCellinNode B	Maximum number of Local Cells that can exist in the Node B
maxSCPICHCell	Maximum number of Secondary CPICHs that can be defined in a Cell.
maxSCCPCHCell	Maximum number of Secondary CCPCHs that can be defined in a Cell.
maxSCCPCHCell768	Maximum number of Secondary CCPCHs that can be defined in a Cell for 7.68 Mcps TDD.
maxFACHCell	Maximum number of FACHs that can be defined in a Cell
maxPRACHCell	Maximum number of PRACHs that can be defined in a Cell
maxRACHCell	Maximum number of RACHs that can be defined in a Cell
maxFPACHCell	Maximum number of FPACHs that can be defined in a Cell
maxPLCCHCell	Maximum number of PLCCHs that can be defined in a Cell
maxE-RUCCHCell	Maximum number of E-RUCCHs that can be defined in a Cell
maxFrequencyinCell	Maximum number of Frequencies that can be defined in a Cell

9.1.17A AUDIT FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.18 COMMON MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Measurement ID	M		9.2.1.42		YES	reject
CHOICE *Common Measurement Object Type*	M				YES	reject
>Cell						
>>C-ID	M		9.2.1.9		–	
>>Time Slot	O		9.2.3.23	Applicable to 3.84McpsTDD and 7.68Mcps TDD only	–	
>>Time Slot LCR	O		9.2.3.24A	Applicable to 1.28Mcps TDD only	YES	reject
>>Neighbouring Cell Measurement Information		*0..<maxnoMeasNCells>*			GLOBAL	ignore
>>>CHOICE *Neighbouring Cell Measurement Information*					–	
>>>>Neighbouring FDD Cell Measurement Information				FDD only		
>>>>>Neighbouring FDD Cell Measurement Information	M		9.2.1.47C		–	
>>>>Neighbouring TDD Cell Measurement Information				Applicable to 3.84Mcps TDD only		
>>>>>Neighbouring TDD Cell Measurement Information	M		9.2.1.47D		–	
>>>>Additional Neighbouring Cell Measurement Information				See Note 1		
>>>>>Neighbouring TDD Cell Measurement Information LCR				Applicable to 1.28Mcps TDD only		
>>>>>>Neighbouring TDD Cell Measurement Information LCR	M		9.2.1.47E		YES	reject
>>>>>Neighbouring TDD Cell Measurement Information 768Mcps				Applicable to 7.68 Mcps TDD only		
>>>>>>Neighbouring TDD Cell Measurement Information 768Mcps	M		9.2.3.37		YES	reject
>>UARFCN	O		9.2.1.65	Mandatory for 1.28Mcps TDD when using	YES	reject

				multiple frequencies and the requested common measurement type is the one except for "HS-DSCH Required Power" or "HS-DSCH Provided Bit Rate". Corresponds to Nt [15]		
>>UpPCH Position LCR	O		9.2.3.4Q	Applicable to 1.28Mcps TDD only	YES	reject
>RACH				FDD only		
>>C-ID	M		9.2.1.9		–	
>>Common Transport Channel ID	M		9.2.1.14		–	
>Not Used			NULL	This choice shall not be used. Reject procedure if received.		
>Additional Common Measurement Object Types				See Note 1		
>>Power Local Cell Group					–	
>>>Power Local Cell Group ID	M		9.2.1.49B		YES	reject
Common Measurement Type	M		9.2.1.11		YES	reject
Measurement Filter Coefficient	O		9.2.1.41		YES	reject
Report Characteristics	M		9.2.1.51		YES	reject
SFN Reporting Indicator	M		FN Reporting Indicator 9.2.1.29B		YES	reject
SFN	O		9.2.1.53A		YES	reject
Common Measurement Accuracy	O		9.2.1.9B		YES	reject
Measurement Recovery Behavior	O		9.2.1.43A		YES	ignore
RTWP* Reporting Indicator	O		9.2.1.53b		YES	reject
RTWP* for Cell Portion Reporting Indicator	O		9.2.1.53c		YES	reject
Reference Received Total Wide Band Power Reporting	O		9.2.2.39C	FDD only	YES	ignore

Note 1: This information element is a simplified representation of the ASN.1. The choice is performed through the use of a ProtocolIE-Single-Container and a ProtocolExtensionContainer within the ASN.1.

Range Bound	Explanation
maxnoMeasNCells	Maximum number of neighbouring cells that can be measured on.

9.1.19 COMMON MEASUREMENT INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Measurement ID	M		9.2.1.42		YES	ignore
CHOICE *Common Measurement Object Type*	O			Common Measurement Object Type that the measurement was initiated with.	YES	ignore
>Cell						
>>Common Measurement Value	M		9.2.1.12		–	
>RACH				FDD only		
>>Common Measurement Value	M		9.2.1.12		–	
>Not Used			NULL	This choice shall not be used.		
>Additional Common Measurement Object Types				See Note 1		
>>Power Local Cell Group					–	
>>>Common Measurement Value	M		9.2.1.12		YES	ignore
SFN	O		9.2.1.53A	Common Measurement Time Reference	YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
Common Measurement Achieved Accuracy	O		Common Measurement Accuracy 9.2.1.9B		YES	ignore
Measurement Recovery Support Indicator	O		9.2.1.43C		YES	ignore
Reference Received Total Wide Band Power Support Indicator	O		9.2.2.39D	FDD only	YES	ignore
Reference Received Total Wide Band Power	O		9.2.2.39B	FDD only	YES	ignore

Note 1: This information element is a simplified representation of the ASN.1. The choice is performed through the use of a ProtocolIE-Single-Container and a ProtocolExtensionContainer within the ASN.1.

9.1.20 COMMON MEASUREMENT INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Measurement ID	M		9.2.1.42		YES	ignore
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.21 COMMON MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Measurement ID	M		9.2.1.42		YES	ignore
CHOICE *Common Measurement Object Type*	M			Common Measurement Object Type that the measurement was initiated with.	YES	ignore
>Cell						
>>Common Measurement Value Information	M		9.2.1.12A		–	
>RACH				FDD only		
>>Common Measurement Value Information	M		9.2.1.12A		–	
>Not Used			NULL	This choice shall not be used.		
>Additional Common Measurement Object Types				See Note 1		
>>Power Local Cell Group					–	
>>>Common Measurement Value Information	M		9.2.1.12A		YES	ignore
SFN	O		9.2.1.53A	Common Measurement Time Reference	YES	ignore
Measurement Recovery Reporting Indicator	O		9.2.1.43B		YES	ignore
Reference Received Total Wide Band Power	O		9.2.2.39B	FDD only	YES	ignore

Note 1: This information element is a simplified representation of the ASN.1. The choice is performed through the use of a ProtocolIE-Single-Container and a ProtocolExtensionContainer within the ASN.1.

9.1.22 COMMON MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Measurement ID	M		9.2.1.42		YES	ignore

9.1.23 COMMON MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Measurement ID	M		9.2.1.42		YES	ignore
Cause	M		9.2.1.6		YES	ignore

9.1.24 CELL SETUP REQUEST

9.1.24.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Local Cell ID	M		9.2.1.38		YES	reject
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
T Cell	M		9.2.2.49		YES	reject
UARFCN	M		9.2.1.65	Corresponds to Nu [14]	YES	reject
UARFCN	M		9.2.1.65	Corresponds to Nd [14]	YES	reject

Maximum Transmission Power	M		9.2.1.40		YES	reject
Closed Loop Timing Adjustment Mode	O		9.2.2.2A		YES	reject
Primary Scrambling Code	M		9.2.2.34		YES	reject
Synchronisation Configuration		*1*			YES	reject
>N_INSYNC_IND	M		9.2.1.47A		–	
>N_OUTSYNC_IND	M		9.2.1.47B		–	
>T_RLFAILURE	M		9.2.1.56A		–	
DL TPC Pattern 01 Count	M		9.2.2.13A		YES	reject
Primary SCH Information		*1*			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Primary SCH Power	M		DL Power 9.2.1.21		–	
>TSTD Indicator	M		9.2.1.64		–	
Secondary SCH Information		*1*			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Secondary SCH Power	M		DL Power 9.2.1.21		–	
>TSTD Indicator	M		9.2.1.64		–	
Primary CPICH Information		*1*			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Primary CPICH power	M		9.2.2.33		–	
>Transmit Diversity Indicator	M		9.2.2.53		–	
Secondary CPICH Information		*0..<maxSCPICHCell>*			EACH	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>DL Scrambling Code	M		9.2.2.13		–	
>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>Secondary CPICH Power	M		DL Power 9.2.1.21		–	
>Transmit Diversity Indicator	M		9.2.2.53		–	
Primary CCPCH Information		*1*			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>BCH Information		*1*			–	
>>Common Transport Channel ID	M		9.2.1.14		–	
>>BCH Power	M		DL Power 9.2.1.21		–	
>STTD Indicator	M		9.2.2.48		–	
Limited Power Increase Information		*1*			YES	reject
>Power_Raise_Limit	M		9.2.2.29A		–	
>DL_power_averaging_window_size	M		9.2.2.12A		–	
IPDL Parameter Information		*0..1*			YES	reject
>IPDL FDD Parameters	M		9.2.2.18C		–	
>IPDL Indicator	M		9.2.1.36F		–	
Cell Portion Information		*0..<maxnoofCellPortions>*			EACH	reject
>Cell Portion ID	M		9.2.2.1Ca		–	
>Associated Secondary CPICH	M		Common Physical Channel ID 9.2.1.13		–	

>Maximum Transmission Power for Cell Portion	M		Maximum Transmission Power 9.2.1.40		–	
MIMO Pilot Configuration	O		9.2.2.73		YES	reject

Range Bound	Explanation
maxSCPICHCell	Maximum number of Secondary CPICHs that can be defined in a Cell.
MaxNoofCellPortions	Maximum number of Cell Portions in a cell

9.1.24.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Local Cell ID	M		9.2.1.38		YES	reject
C-ID	M		9.2.1.9		YES	reject
Configuration Generation Id	M		9.2.1.16		YES	reject
UARFCN	M		9.2.1.65	Corresponds to Nt [15] For 1.28Mcps TDD, if multiple frequencies exist within the cell indicated by C-ID, this IE indicates the frequency of Primary Frequency.	YES	reject
Cell Parameter ID	M		9.2.3.4	For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, this IE indicates the preamble code used in the MBSFN Special Time Slot [19].	YES	reject
Maximum Transmission Power	M		9.2.1.40		YES	reject
Transmission Diversity Applied	M		9.2.3.26		YES	reject
Sync Case	M		9.2.3.18		YES	reject
Synchronisation Configuration		*1*			YES	reject
>N_INSYNC_IND	M		9.2.1.47A		–	
>N_OUTSYNC_IND	M		9.2.1.47B		–	
>T_RLFAILURE	M		9.2.1.56A		–	
DPCH Constant Value	M		Constant Value 9.2.3.4A	This IE shall be ignored by the Node B.	YES	reject
PUSCH Constant Value	M		Constant Value 9.2.3.4A	This IE shall be ignored by the Node B.	YES	reject
PRACH Constant Value	M		Constant Value 9.2.3.4A	This IE shall be ignored by the Node B.	YES	reject
Timing Advance Applied	M		9.2.3.22A		YES	reject
SCH Information		*0..1*		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD.	YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>CHOICE *Sync Case*	M				YES	reject
>>*Case 1*						
>>>Time Slot	M		9.2.3.23		–	
>>*Case 2*						
>>>SCH Time Slot	M		9.2.3.17		–	

>SCH Power	M		DL Power 9.2.1.21		–	
>TSTD Indicator	M		9.2.1.64		–	
PCCPCH Information		*0..1*		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD.	YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>TDD Physical Channel Offset	M		9.2.3.20		–	
>Repetition Period	M		9.2.3.16		–	
>Repetition Length	M		9.2.3.15		–	
>PCCPCH Power	M		9.2.3.9		–	
>SCTD Indicator	M		9.2.3.30		–	
Time Slot Configuration		*0..15*		Mandatory for 3.84Mcps TDD and 7.68Mcps TDD. Not Applicable to 1.28Mcps TDD.	GLOBAL	reject
>Time Slot	M		9.2.3.23		–	
>Time Slot Status	M		9.2.3.25		–	
>Time Slot Direction	M		9.2.3.24		–	
>MBSFN Cell Parameter ID	O		Cell Parameter ID 9.2.3.4		YES	reject
Time Slot Configuration LCR		*0..7*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD. If multiple frequencies exist within the cell indicated by C-ID, this IE indicates the Time Slot configuration of Primary Frequency.	GLOBAL	reject
>Time Slot LCR	M		9.2.3.24A		–	
>Time Slot Status	M		9.2.3.25		–	
>Time Slot Direction	M		9.2.3.24		–	
>Time Slot Parameter ID	O		Cell Parameter ID 9.2.3.4	Applicable only to MBSFN only mode	YES	reject

PCCPCH Information LCR		*0..1*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD. For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, PCCPCH is deployed on the MBSFN Special Time Slot [19].	YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>TDD Physical Channel Offset	M		9.2.3.20		–	
>Repetition Period	M		9.2.3.16		–	
>Repetition Length	M		9.2.3.15		–	
>PCCPCH Power	M		9.2.3.9		–	
>SCTD Indicator	M		9.2.3.30		–	
>TSTD Indicator	M		9.2.1.64		–	
DwPCH Information		*0..1*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>TSTD Indicator	M		9.2.1.64		–	
>DwPCH Power	M		9.2.3.5B		–	
Reference SFN Offset	O		9.2.3.14B		YES	ignore
IPDL Parameter Information		*0..1*		Applicable to 3.84 Mcps TDD and 7.68 Mcps TDD only	YES	reject
>IPDL TDD Parameters	M		9.2.3.5D		–	
>IPDL Indicator	M		9.2.1.36F		–	
IPDL Parameter Information LCR		*0..1*		Applicable to 1.28Mcps TDD only	YES	reject
>IPDL TDD Parameters LCR	M		9.2.3.5H		–	
>IPDL Indicator	M		9.2.1.36F		–	

PCCPCH Information 7.68 Mcps TDD		*0..1*		Mandatory for 7.68 Mcps TDD. Not Applicable to 1.28Mcps TDD or 3.84 Mcps TDD.	YES	reject
>Common Physical Channel ID 7.68 Mcps	M		9.2.3.33		–	
>TDD Physical Channel Offset	M		9.2.3.20		–	
>Repetition Period	M		9.2.3.16		–	
>Repetition Length	M		9.2.3.15		–	
>PCCPCH Power	M		9.2.3.9		–	
>SCTD Indicator	M		9.2.3.30		–	
SCH Information 7.68Mcps TDD		*0..1*		Mandatory for 7.68Mcps TDD. Not Applicable to 1.28Mcps TDD or 3.84Mcps TDD.	YES	reject
>Common Physical Channel ID 7.68Mcps	M		9.2.3.33		–	
>CHOICE *Sync Case*	M				YES	reject
>>Case 1						
>>>Time Slot	M		9.2.3.23		–	
>>Case 2						
>>>SCH Time Slot	M		9.2.3.17		–	
>SCH Power	M		DL Power 9.2.1.21		–	
>TSTD Indicator	M		9.2.1.64		–	
MBSFN Only Mode Indicator	O		9.2.3.70	Mandatory for 1.28Mcps TDD when the cell is operating in MBSFN only mode. Not applicable to FDD, 3.84Mcps TDD or 7.68Mcps TDD	YES	reject
UARFCN Information LCR		*0.. <maxFrequencyinCell-1>*		Mandatory for 1.28Mcps TDD when using multiple frequencies. It indicates the UARFCN and Time Slot configuration information of the Secondary Frequencies. There could be several secondary frequencies	EACH	reject
>UARFCN	M		9.2.1.65	Corresponds to Nt [15] This IE indicates the frequency of a Secondary Frequency.	–	
>Time Slot Configuration LCR		*1..7*		This IE indicates the Time Slot	–	

				configuration of a Secondary Frequency.		
>>Time Slot LCR	M		9.2.3.24A		–	
>>Time Slot Status	M		9.2.3.25		–	
>>Time Slot Direction	M		9.2.3.24		–	
>>Time Slot Parameter ID	O		Cell Parameter ID 9.2.3.4		YES	reject

Range Bound	Explanation
maxFrequencyinCell	Maximum number of Frequencies that can be defined in a Cell

9.1.25 CELL SETUP RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.26 CELL SETUP FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.27 CELL RECONFIGURATION REQUEST

9.1.27.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
Maximum Transmission Power	O		9.2.1.40		YES	reject
Synchronisation Configuration		*0..1*			YES	reject
>N_INSYNC_IND	M		9.2.1.47A		–	
>N_OUTSYNC_IND	M		9.2.1.47B		–	
>T_RLFAILURE	M		9.2.1.56A		–	
Primary SCH Information		*0..1*			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Primary SCH Power	M		DL Power 9.2.1.21		–	
Secondary SCH Information		*0..1*			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Secondary SCH Power	M		DL Power 9.2.1.21		–	
Primary CPICH Information		*0..1*			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Primary CPICH Power	M		9.2.2.33		–	
Secondary CPICH Information		*0..<maxSCPICHCell>*			EACH	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Secondary CPICH Power	M		DL Power 9.2.1.21		–	
Primary CCPCH Information		*0..1*			YES	reject
>BCH Information		*1*			–	
>>Common Transport Channel ID	M		9.2.1.14		–	
>>BCH Power	M		DL Power 9.2.1.21		–	
IPDL Parameter Information		*0..1*			YES	reject
>IPDL FDD Parameters	O		9.2.2.18C		–	
>IPDL Indicator	M		9.2.1.36F		–	
Cell Portion Information		0..<maxnoofCellPortions>			EACH	reject
>Cell Portion ID	M		9.2.2.1Ca		–	
>Maximum Transmission Power for Cell Portion	M		Maximum Transmission Power 9.2.1.40		–	
MIMO Pilot Configuration	O		9.2.2.73		YES	reject

Range Bound	Explanation
maxSCPICHCell	Maximum number of Secondary CPICH that can be defined in a Cell.

9.1.27.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
Synchronisation Configuration		*0..1*			YES	reject
>N_INSYNC_IND	M		9.2.1.47A		–	
>N_OUTSYNC_IND	M		9.2.1.47B		–	
>T_RLFAILURE	M		9.2.1.56A		–	
Timing Advance Applied	O		9.2.3.22A		YES	reject
SCH Information		*0..1*		Applicable to 3.84Mcps TDD only	YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>SCH Power	M		DL Power 9.2.1.21		–	
PCCPCH Information		*0..1*		Not applicable to 7.68Mcps TDD only. For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, PCCPCH is deployed on the MBSFN Special Time Slot [19].	YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>PCCPCH Power	M		9.2.3.9		–	
Maximum Transmission Power	O		9.2.1.40		YES	reject
DPCH Constant Value	O		Constant Value 9.2.3.4A	This IE shall be ignored by the Node B.	YES	reject
PUSCH Constant Value	O		Constant Value 9.2.3.4A	This IE shall be ignored by the Node B.	YES	reject
PRACH Constant Value	O		Constant Value 9.2.3.4A	This IE shall be ignored by the Node B.	YES	reject
Time Slot Configuration		*0..15*		Mandatory for 3.84Mcps TDD and 7.68Mcps TDD. Not Applicable to 1.28Mcps TDD.	GLOBAL	reject
>Time Slot	M		9.2.3.23		–	
>Time Slot Status	M		9.2.3.25		–	
>Time Slot Direction	M		9.2.3.24		–	
>MBSFN Cell Parameter ID	O		Cell Parameter ID 9.2.3.4		YES	reject
Time Slot Configuration LCR		*0..7*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or	GLOBAL	reject

				7.68Mcps TDD. If multiple frequencies exist within the cell indicated by C-ID, this IE indicates the Time Slot reconfiguration of Primary Frequency.		
>Time Slot LCR	M		9.2.3.24A		–	
>Time Slot Status	M		9.2.3.25		–	
>Time Slot Direction	M		9.2.3.24		–	
DwPCH Information		*0..1*		Applicable to 1.28Mcps TDD only.	YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>DwPCH Power	M		9.2.3.5B		–	
IPDL Parameter Information		*0..1*		Applicable to 3.84Mcps TDD and 7.68Mcps TDD only	YES	reject
>IPDL TDD Parameters	O		9.2.3.5D		–	
>IPDL Indicator	M		9.2.1.36F		–	
IPDL Parameter Information LCR		*0..1*		Applicable to 1.28Mcps TDD only	YES	reject
>IPDL TDD Parameters LCR	O		9.2.3.5H		–	
>IPDL Indicator	M		9.2.1.36F		–	
SCH Information 7.68Mcps		*0..1*		Applicable to 7.68Mcps TDD only	YES	reject
>Common Physical Channel ID 7.68Mcps	M		9.2.3.33		–	
>SCH Power	M		DL Power 9.2.1.21		–	
PCCPCH Information 7.68Mcps		*0..1*		Applicable to 7.68Mcps TDD only	YES	reject
>Common Physical Channel ID 7.68Mcps	M		9.2.3.33		–	
>PCCPCH Power	M		9.2.3.9		–	
CHOICE *UARFCN Adjustment*	O			Applicable to 1.28Mcps TDD when using multiple frequencies	YES	reject
>Add						
>>UARFCN Information To Add LCR		*1*			–	
>>>UARFCN	M		9.2.1.65	Corresponds to Nt [15] This IE indicates the frequency of a Secondary Frequency to add.	–	
>>>Time Slot Configuration LCR		*1..7*		This IE indicates the Time Slot configuration of a Secondary Frequency to	–	

				add.		
>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>Time Slot Status	M		9.2.3.25		–	
>>>>Time Slot Direction	M		9.2.3.24		–	
>Modify						
>>UARFCN Information To Modify LCR		*1.. <maxFrequencyinCell-1>*		there could be several secondary frequencies	–	
>>>UARFCN	M		9.2.1.65	Corresponds to Nt [15] This IE indicates the frequency of a Secondary Frequency to modify.	–	
>>>Time Slot Configuration LCR		*1..7*		This IE indicates the Time Slot reconfiguration of a Secondary Frequency to modify.	–	
>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>Time Slot Status	M		9.2.3.25		–	
>>>>Time Slot Direction	M		9.2.3.24		–	
>Delete						
>>UARFCN Information To Delete LCR		*1*			–	
>>>UARFCN	M		9.2.1.65	Corresponds to Nt [15] This IE indicates the frequency of Secondary Frequency to delete.	–	

Range Bound	Explanation
maxFrequencyinCell	Maximum number of Frequencies that can be defined in a Cell

9.1.28 CELL RECONFIGURATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.29 CELL RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.30 CELL DELETION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject

9.1.31 CELL DELETION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.32 RESOURCE STATUS INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CHOICE *Indication Type*	M				YES	ignore
>No Failure						
>>Local Cell Information		*1..<max LocalCellin Node B>*			EACH	ignore
>>>Local Cell ID	M		9.2.1.38		–	
>>>Add/Delete Indicator	M		9.2.1.1		–	
>>>DL Or Global Capacity Credit	C-add		9.2.1.20B		–	
>>>UL Capacity Credit	O		9.2.1.65A		–	
>>>Common Channels Capacity Consumption Law	C-add		9.2.1.9A		–	
>>>Dedicated Channels Capacity Consumption Law	C-add		9.2.1.20A		–	
>>>Maximum DL Power Capability	C-add		9.2.1.39		–	
>>>Minimum Spreading Factor	C-add		9.2.1.47		–	
>>>Minimum DL Power Capability	C-add		9.2.1.46A		–	
>>>Local Cell Group ID	O		9.2.1.37A		–	
>>>Reference Clock Availability	O		9.2.3.14A	TDD only	YES	ignore
>>>Power Local Cell Group ID	O		9.2.1.49B		YES	ignore
>>>HSDPA Capability	O		9.2.1.31Ga		YES	ignore
>>>E-DCH Capability	O		9.2.1.70		YES	ignore
>>>E-DCH TTI2ms Capability	C-EDCHCapability		9.2.2.13V	FDD only	YES	ignore
>>>E-DCH SF Capability	C-EDCHCapability		9.2.2.13W	FDD only	YES	ignore
>>>E-DCH HARQ Combining Capability	C-EDCHCapability		9.2.2.13X	FDD only	YES	ignore
>>>E-DCH Capacity Consumption Law	O		9.2.2.13Ja	FDD only	YES	ignore
>>>F-DPCH Capability	O		9.2.2.16a	FDD only	YES	ignore
>>>E-DCH TDD Capacity Consumption Law	O		9.2.3.60	TDD only	YES	ignore
>>>Continuous Packet Connectivity DTX-DRX Capability	O		9.2.2.64	FDD only	YES	ignore
>>>Max UE DTX Cycle	C-DTX-DRXCapability		9.2.2.95	FDD only	YES	ignore
>>>Continuous Packet Connectivity HS-SCCH	O		9.2.2.65	FDD only	YES	ignore

less Capability						
>>>MIMO Capability	O		9.2.2.70	FDD only	YES	ignore
>>>SixtyfourQAM DL Capability	O		9.2.2.74	FDD only	YES	ignore
>>>MBMS Capability	O		9.2.1.86		YES	ignore
>>>Enhanced FACH Capability	O		9.2.2.86	FDD only	YES	ignore
>>>Enhanced PCH Capability	C-EnhancedFACHCapability		9.2.2.87	FDD only	YES	ignore
>>>SixteenQAM UL Capability	O		9.2.2.88	FDD only	YES	ignore
>>>HS-DSCH MAC-d PDU Size Capability	O		9.2.1.31IC		YES	ignore
>>>MBSFN Only Mode Capability	O		9.2.3.71	1.28Mcps TDD only	YES	ignore
>>>F-DPCH Slot Format Capability	O		9.2.2.94	FDD only	YES	ignore
>>Local Cell Group Information		*0..<maxLocalCellinNode B>*			EACH	ignore
>>>Local Cell Group ID	M		9.2.1.37A		–	
>>>DL Or Global Capacity Credit	M		9.2.1.20B		–	
>>>UL Capacity Credit	O		9.2.1.65A		–	
>>>Common Channels Capacity Consumption Law	M		9.2.1.9A		–	
>>>Dedicated Channels Capacity Consumption Law	M		9.2.1.20A		–	
>>>E-DCH Capacity Consumption Law	O		9.2.2.13Ja	FDD only	YES	ignore
>>>E-DCH TDD Capacity Consumption Law	O		9.2.3.60	TDD only	YES	ignore
>>Power Local Cell Group Information		*0..<maxLocalCellinNode B>*			EACH	ignore
>>>Power Local Cell Group ID	M		9.2.1.49B		–	
>>>Maximum DL Power Capability	M		9.2.1.39		–	
>Service Impacting						
>>Local Cell Information		*0..<maxLocalCellinNode B>*			EACH	ignore
>>>Local Cell ID	M		9.2.1.38		–	
>>>DL Or Global Capacity Credit	O		9.2.1.20B		–	
>>>UL Capacity Credit	O		9.2.1.65A		–	
>>>Common Channels Capacity Consumption Law	O		9.2.1.9A		–	
>>>Dedicated Channels Capacity Consumption Law	O		9.2.1.20A		–	
>>>Maximum DL Power Capability	O		9.2.1.39		–	

>>>Minimum Spreading Factor	O		9.2.1.47		–	
>>>Minimum DL Power Capability	O		9.2.1.46A		–	
>>>Reference Clock Availability	O		9.2.3.14A	TDD only	YES	ignore
>>>HSDPA Capability	O		9.2.1.31Ga		YES	ignore
>>>E-DCH Capability	O		9.2.1.70		YES	ignore
>>>E-DCH TTI2ms Capability	C-EDCHCapability		9.2.2.13V	FDD only	YES	ignore
>>>E-DCH SF Capability	C-EDCHCapability		9.2.2.13W	FDD only	YES	ignore
>>>E-DCH HARQ Combining Capability	C-EDCHCapability		9.2.2.13X	FDD only	YES	ignore
>>>E-DCH Capacity Consumption Law	O		9.2.2.13Ja	FDD only	YES	ignore
>>>F-DPCH Capability	O		9.2.2.16a		YES	ignore
>>>E-DCH TDD Capacity Consumption Law	O		9.2.3.60	TDD only	YES	ignore
>>>Continuous Packet Connectivity DTX-DRX Capability	O		9.2.2.64	FDD only	YES	ignore
>>>Max UE DTX Cycle	C-DTX-DRXCapability		9.2.2.95	FDD only	YES	ignore
>>>Continuous Packet Connectivity HS-SCCH less Capability	O		9.2.2.65	FDD only	YES	ignore
>>>MIMO Capability	O		9.2.2.70	FDD only	YES	ignore
>>>SixtyfourQAM DL Capability	O		9.2.2.74	FDD only	YES	ignore
>>>MBMS Capability	O		9.2.1.86		YES	ignore
>>>Enhanced FACH Capability	O		9.2.2.86	FDD only	YES	ignore
>>>Enhanced PCH Capability	C-EnhancedFACHCapability		9.2.2.87	FDD only	YES	ignore
>>>SixteenQAM UL Capability	O		9.2.2.88	FDD only	YES	ignore
>>>HS-DSCH MAC-d PDU Size Capability	O		9.2.1.31IC		YES	ignore
>>>MBSFN Only Mode Capability	O		9.2.3.71	1.28Mcps TDD only	YES	ignore
>>>F-DPCH Slot Format Capability	O		9.2.2.94	FDD only	YES	ignore
>>Local Cell Group Information		*0..<maxLocalCellinNode B>*			EACH	ignore
>>>Local Cell Group ID	M		9.2.1.37A		–	
>>>DL Or Global Capacity Credit	O		9.2.1.20B		–	
>>>UL Capacity Credit	O		9.2.1.65A		–	
>>>Common Channels Capacity Consumption Law	O		9.2.1.9A		–	

>>>Dedicated Channels Capacity Consumption Law	O		9.2.1.20A		–	
>>>E-DCH Capacity Consumption Law	O		9.2.2.13Ja	FDD only	YES	ignore
>>>E-DCH TDD Capacity Consumption Law	O		9.2.3.60	TDD only	YES	ignore
>>Communication Control Port Information		*0..<maxCCPinNodeB>*			EACH	ignore
>>>Communication Control Port ID	M		9.2.1.15		–	
>>>Resource Operational State	M		9.2.1.52		–	
>>>Availability Status	M		9.2.1.2		–	
>>Cell Information		*0..<maxCellinNodeB>*			EACH	ignore
>>>C-ID	M		9.2.1.9		–	
>>>Resource Operational State	O		9.2.1.52		–	
>>>Availability Status	O		9.2.1.2		–	
>>>Primary SCH Information	O		Common Physical Channel Status Information 9.2.1.13A	FDD only	YES	ignore
>>>Secondary SCH Information	O		Common Physical Channel Status Information 9.2.1.13A	FDD only	YES	ignore
>>>Primary CPICH Information	O		Common Physical Channel Status Information 9.2.1.13A	FDD only	YES	ignore
>>>Secondary CPICH Information		*0..<maxSCPICHCell>*		FDD only	EACH	ignore
>>>>Secondary CPICH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>>>Primary CCPCH Information	O		Common Physical Channel Status Information 9.2.1.13A		YES	ignore
>>>BCH Information	O		Common Transport Channel Status Information 9.2.1.14B		YES	ignore
>>>Secondary CCPCH Information		*0..<maxSCCPCHCe*		See note 1 below	EACH	ignore

		ll>				
>>>>Secondary CCPCH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>>>PCH Information	O		Common Transport Channel Status Information 9.2.1.14B		YES	ignore
>>>PICH Information	O		Common Physical Channel Status Information 9.2.1.13A		YES	ignore
>>>FACH Information		*0..<maxFACHCell>*			EACH	ignore
>>>>FACH Individual Information	M		Common Transport Channel Status Information 9.2.1.14B		–	
>>>PRACH Information		*0..<maxPRACHCell>*			EACH	ignore
>>>>PRACH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>>>RACH Information		*0..<maxPRACHCell>*			EACH	ignore
>>>>RACH Individual Information	M		Common Transport Channel Status Information 9.2.1.14B		–	
>>>AICH Information		*0..<maxPRACHCell>*		FDD only	EACH	ignore
>>>>AICH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>>>Not Used 1	O		NULL	This item shall not be used. Ignore if received.	–	
>>>Not Used 2	O		NULL	This item shall not be used. Ignore if received.	–	
>>>Not Used 3	O		NULL	This item shall not be used. Ignore if received.	–	
>>>Not Used 4	O		NULL	This item shall not be used.	–	

				Ignore if received.		
>>>SCH Information	O		Common Physical Channel Status Information 9.2.1.13A	Applicable to 3.84Mcps TDD only	YES	ignore
>>>FPACH Information		*0..<maxFPACHCell>*		Applicable to 1.28Mcps TDD only	EACH	ignore
>>>>FPACH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>>>DwPCH Information	O		Common Physical Channel Status Information 9.2.1.13A	Applicable to 1.28Mcps TDD only	YES	ignore
>>>HS-DSCH Resources Information		*0..<maxFrequencyinCell>*		See note 2 below	EACH	ignore
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Applicable to 1.28Mcps TDD when using multiple frequencies.	YES	ignore
>>>MICH Information	O		Common Physical Channel Status Information 9.2.1.13A		YES	ignore
>>>E-DCH Resources Information		*0..<maxFrequencyinCell>*		See note 2 below	EACH	ignore
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Applicable to 1.28Mcps TDD when using multiple frequencies.	YES	ignore
>>>PLCCH Information		*0..<maxPLCCHCell>*		Applicable to 1.28Mcps TDD only	EACH	ignore
>>>>PLCCH Individual Information	M		Common Physical Channel Status Information		–	

			9.2.1.13A			
>>>Primary CCPCH Information 7.68Mcps	O		Common Physical Channel Status Information 7.68Mcps 9.2.3.36		YES	ignore
>>>Secondary CCPCH Information 7.68Mcps		*0..<maxSCCPCHCell768>*			EACH	ignore
>>>>Secondary CCPCH Individual Information 7.68Mcps	M		Common Physical Channel Status Information 7.68Mcps 9.2.3.36		–	
>>>PICH Information 7.68Mcps	O		Common Physical Channel Status Information 7.68Mcps 9.2.3.36		YES	ignore
>>>PRACH Information 7.68Mcps		*0..<maxPRACHCell>*			EACH	ignore
>>>>PRACH Individual Information 7.68Mcps	M		Common Physical Channel Status Information 7.68Mcps 9.2.3.36		–	
>>>SCH Information 7.68Mcps	O		Common Physical Channel Status Information 7.68Mcps 9.2.3.36	Applicable to 7.68Mcps TDD only	YES	ignore
>>>MICH Information 7.68Mcps	O		Common Physical Channel Status Information 7.68Mcps 9.2.3.36		YES	ignore
>>>E-RUCCH Information		*0..<maxE-RUCCHCell>*		Applicable to 3.84Mcps TDD only	EACH	ignore
>>>>E-RUCCH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>>>E-RUCCH Information 7.68Mcps		*0..<maxE-RUCCHCell>*		Applicable to 7.68Mcps TDD only	EACH	ignore
>>>>E-RUCCH Individual Information 7.68Mcps	M		Common Physical Channel Status Information 7.68Mcps 9.2.3.36		–	

>>>UARFCN Information LCR		*0..<maxFrequencyinCell>*		Applicable to 1.28Mcps TDD when using multiple frequencies.	EACH	ignore
>>>>UARFCN	M		9.2.1.65	Corresponds to Nt [15]	–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>>Cause	O		9.2.1.6		–	
>>>UpPCH Information LCR		*0..<maxFrequencyinCell>*		Applicable to 1.28Mcps TDD only.	EACH	ignore
>>>>UARFCN	O		9.2.1.65	Mandatory for 1.28Mcps TDD when using multiple frequencies. Corresponds to Nt [15]	–	
>>>>UpPCH Position LCR	M		9.2.3.4Q		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>Power Local Cell Group Information		*0..<maxLocalCellinNode B>*			EACH	ignore
>>>Power Local Cell Group ID	M		9.2.1.49B		–	
>>>Maximum DL Power Capability	M		9.2.1.39		–	
Cause	O		9.2.1.6		YES	ignore

Note 1: This information element is a simplified representation of the ASN.1. [TDD - Repetitions 1 to 8 and repetitions 9 to maxSCCPCHCell are represented by separate ASN.1 structures.] Furthermore, maxSCCPCHCell has different values in the ASN.1 for FDD and for each of the two TDD options.

Note 2: For 1.28Mcps TDD when using multiple frequencies, this information element for Repetition 1 and repetition 2 through maxFrequencyinCell are represented by respective ASN.1 structures with different criticalities.

Condition	Explanation
add	The IE shall be present if the *Add/Delete Indicator* IE is set to "Add".
EDCHCapability	The IE shall be present if the *E-DCH Capability* IE is set to "E-DCH Capable".
EnhancedFACHCapability	The IE shall be present if the *Enhanced FACH Capability* IE is set to "Enhanced FACH Capable".
DTX-DRXCapability	The IE shall be present if the *Continuous Packet Connectivity DTX-DRX Capability* IE is present and set to " Continuous Packet Connectivity DTX-DRX Capable".

Range Bound	Explanation
maxLocalCellinNode B	Maximum number of Local Cells that can exist in the Node B
maxCellinNode B	Maximum number of C-IDs that can be configured in the Node B
maxSCPICHCell	Maximum number of Secondary CPICHs that can be defined in a Cell.
maxSCCPCHCell	Maximum number of Secondary CCPCHs that can be defined in a Cell.
maxFACHCell	Maximum number of FACHs that can be defined in a Cell
maxPRACHCell	Maximum number of PRACHs and AICHs that can be defined in a Cell
maxCCPinNode B	Maximum number of Communication Control Ports that can exist in the Node B
maxFPACHCell	Maximum number of FPACHs that can be defined in a Cell
maxPLCCHCell	Maximum number of PLCCHs that can be defined in a Cell
maxE-RUCCHCell	Maximum number of E-RUCCHs that can be defined in a Cell
maxFrequencyinCell	Maximum number of Frequencies that can be defined in a Cell

9.1.33 SYSTEM INFORMATION UPDATE REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
BCCH Modification Time	O		9.2.1.3		YES	reject
MIB/SB/SIBInformation		*1..<maxIB>*			GLOBAL	reject
>IB Type	M		9.2.1.35		–	
>IB OC ID	M		9.2.1.31A	In one message, every occurrence of IB Type can only be deleted once and/or added once.	–	
>CHOICE *IB Deletion Indicator*	M				–	
>>No Deletion						
>>>SIB Originator	C-SIB		9.2.1.55		–	
>>>IB SG REP	O		9.2.1.34		–	
>>>Segment Information		*1..<maxIB SEG>*			GLOBAL	reject
>>>>IB SG POS	O		9.2.1.33		–	
>>>>Segment Type	C-CRNCOrigination		9.2.1.53B		–	
>>>>IB SG DATA	C-CRNCOrigination		9.2.1.32		–	
>>Deletion			NULL			

Range bound	Explanation
maxIB	Maximum number of information Blocks supported in one message
maxIBSEG	Maximum number of segments for one Information Block

Condition	Explanation
CRNCOrigination	The IE shall be present if the *SIB Originator* IE is set to "CRNC" or if the *IB Type* IE is set to "MIB", "SB1" or "SB2".
SIB	The IE shall be present if the *IB Type* IE is set to "SIB".

9.1.34 SYSTEM INFORMATION UPDATE RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.35 SYSTEM INFORMATION UPDATE FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.36 RADIO LINK SETUP REQUEST

9.1.36.1 FDD message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	reject
UL DPCH Information		*1*			YES	reject
>UL Scrambling Code	M		9.2.2.59		–	
>Min UL Channelisation Code Length	M		9.2.2.22		–	
>Max Number of UL DPDCHs	C-CodeLen		9.2.2.21		–	
>Puncture Limit	M		9.2.1.50	For UL	–	
>TFCS	M		9.2.1.58	For UL	–	
>UL DPCCH Slot Format	M		9.2.2.57		–	
>UL SIR Target	M		UL SIR 9.2.1.67A		–	
>Diversity Mode	M		9.2.2.9		–	
>Not Used	O		NULL		–	
>Not Used	O		NULL		–	
>DPC Mode	O		9.2.2.13C		YES	reject
>UL DPDCH Indicator For E-DCH Operation	O		9.2.2.61	This IE may be present without the presence of the *E-DPCH Information* IE	YES	reject
DL DPCH Information		*0..1*			YES	reject
>TFCS	M		9.2.1.58	For DL	–	
>DL DPCH Slot Format	M		9.2.2.10		–	
>TFCI Signalling Mode	M		9.2.2.50		–	
>TFCI Presence	C-SlotFormat		9.2.1.57		–	
>Multiplexing Position	M		9.2.2.23		–	
>Not Used	O		NULL		–	
>Not Used	O		NULL		–	
>Power Offset Information		*1*			–	
>>PO1	M		Power Offset 9.2.2.29	Power offset for the TFCI bits	–	
>>PO2	M		Power Offset 9.2.2.29	Power offset for the TPC bits	–	
>>PO3	M		Power Offset 9.2.2.29	Power offset for the pilot bits	–	
>FDD TPC DL Step Size	M		9.2.2.16		–	
>Limited Power Increase	M		9.2.2.18A		–	
>Inner Loop DL PC Status	M		9.2.2.18B		–	
DCH Information	M		DCH FDD Information 9.2.2.4D		YES	reject
RL Information		*1..<maxno*			EACH	notify

		ofRLs>				
>RL ID	M		9.2.1.53		–	
>C-ID	M		9.2.1.9		–	
>First RLS Indicator	M		9.2.2.16A		–	
>Frame Offset	M		9.2.1.31		–	
>Chip Offset	M		9.2.2.2		–	
>Propagation Delay	O		9.2.2.35		–	
>Diversity Control Field	C-NotFirstRL		9.2.1.25		–	
>DL Code Information	M		FDD DL Code Information 9.2.2.14A		–	
>Initial DL Transmission Power	M		DL Power 9.2.1.21	Initial power on DPCH or on F-DPCH	–	
>Maximum DL Power	M		DL Power 9.2.1.21	Maximum allowed power on DPCH or on F-DPCH	–	
>Minimum DL Power	M		DL Power 9.2.1.21	Minimum allowed power on DPCH or on F-DPCH	–	
>Not Used	O		NULL		–	
>Transmit Diversity Indicator	C-Diversity mode		9.2.2.53		–	
>RL Specific DCH Information	O		9.2.1.53G		YES	ignore
>Delayed Activation	O		9.2.1.24C		YES	reject
>Primary CPICH Usage For Channel Estimation	O		9.2.2.33A		YES	ignore
>Secondary CPICH Information	O		Common Physical Channel ID 9.2.1.13		YES	ignore
>E-DCH RL Indication	O		9.2.2.13De		YES	reject
>RL Specific E-DCH Information	O		9.2.2.39a		YES	ignore
>Synchronisation Indicator	O		9.2.2.48A		YES	ignore
>Extended Propagation Delay	O		9.2.2.35A		YES	ignore
>F-DPCH Slot Format	O		9.2.2.93		YES	reject
Transmission Gap Pattern Sequence Information	O		9.2.2.53A		YES	reject
Active Pattern Sequence Information	O		9.2.2.A		YES	reject
DL Power Balancing Information	O		9.2.2.12B		YES	ignore
HS-DSCH Information	O		HS-DSCH FDD Information 9.2.2.18D		YES	reject
HS-DSCH-RNTI	C-InfoHSDSCH		9.2.1.31J		YES	reject
HS-PDSCH RL ID	C-InfoHSDSCH		RL ID 9.2.1.53		YES	reject
E-DPCH Information		*0..1*			YES	reject
>Maximum Set of E-DPDCHs	M		9.2.2.20C		–	

>Puncture Limit	M		9.2.1.50		–	
>E-TFCS Information	M		9.2.2.13Dh		–	
>E-TTI	M		9.2.2.13Di		–	
>E-DPCCH Power Offset	M		9.2.2.13Dj		–	
>E-RGCH 2-Index-Step Threshold	M		9.2.2.13Ig		–	
>E-RGCH 3-Index-Step Threshold	M		9.2.2.13Ih		–	
>HARQ Info for E-DCH	M		9.2.2.18ba		–	
>HS-DSCH Configured Indicator	M		9.2.2.18Ca		–	
E-DCH FDD Information	C-EDPCHInfo		9.2.2.13Da		YES	reject
Serving E-DCH RL	O		9.2.2.48B		YES	reject
F-DPCH Information		*0..1*			YES	reject
>Power Offset Information		*1*			–	
>>PO2	M		Power Offset 9.2.2.29	This IE shall be ignored by Node B.	–	
>FDD TPC DL Step Size	M		9.2.2.16		–	
>Limited Power Increase	M		9.2.2.18A		–	
>Inner Loop DL PC Status	M		9.2.2.18B		–	
Initial DL DPCH Timing Adjustment Allowed	O		9.2.2.18K		YES	ignore
DCH Indicator For E-DCH-HSDPA Operation	O		9.2.2.4F		YES	reject
Serving Cell Change CFN	O		CFN 9.2.1.7		YES	reject
Continuous Packet Connectivity DTX-DRX Information	O		9.2.2.66		YES	reject
Continuous Packet Connectivity HS-SCCH less Information	O		9.2.2.68		YES	reject

Condition	Explanation
CodeLen	The IE shall be present if *Min UL Channelisation Code Length* IE equals to 4.
NotFirstRL	The IE shall be present if the RL is not the first one in the *RL Information* IE.
SlotFormat	The IE shall be present if the *DL DPCH Slot Format* IE is equal to any of the values from 12 to 16.
Diversity mode	The IE shall be present if *Diversity Mode* IE in *UL DPCH Information* IE is not set to "none".
InfoHSDSCH	The IE shall be present if *HS-DSCH Information* IE is present.
EDPCHInfo	This IE shall be present if *E-DPCH Information* IE is present.

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE

9.1.36.2 TDD message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	reject
UL CCTrCH Information		*0..<maxnoCCTrCH>*			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	M		9.2.1.58		–	
>TFCI Coding	M		9.2.3.22		–	
>Puncture Limit	M		9.2.1.50		–	
>UL DPCH Information		*0..1*		Applicable to 3.84Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information	M		9.2.3.26C		–	
>UL DPCH Information LCR		*0..1*		Applicable to 1.28Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information LCR	M		9.2.3.26E		–	
>UL SIR Target	O		UL SIR 9.2.1.67A	Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>TDD TPC UL Step Size	O		9.2.3.21a	Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>UL DPCH Information 7.68Mcps		*0..1*		Applicable to 7.68Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information 7.68Mcps	M		9.2.3.38		–	
DL CCTrCH Information		*0..<maxnoCCTrCH>*			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	M		9.2.1.58		–	
>TFCI Coding	M		9.2.3.22		–	
>Puncture Limit	M		9.2.1.50		–	
>TDD TPC DL Step Size	M		9.2.3.21		–	
>TPC CCTrCH List		*0..<maxno*		List of uplink	–	

		CCTrCH>		CCTrCH which provide TPC		
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.3		–	
>DL DPCH information		*0..1*		Applicable to 3.84Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>DL Timeslot Information	M		9.2.3.4E		–	
>DL DPCH information LCR		*0..1*		Applicable to 1.28Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>DL Timeslot Information LCR	M		9.2.3.4O		–	
>>TSTD Indicator	M		9.2.1.64		–	
>CCTrCH Initial DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>CCTrCH Maximum DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>CCTrCH Minimum DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>DL DPCH information 7.68Mcps		*0..1*		Applicable to 7.68Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>DL Timeslot Information 7.68Mcps	M		9.2.3.39		–	
DCH Information	O		DCH TDD Information 9.2.3.4C		YES	reject
DSCH Information	O		DSCH TDD Information 9.2.3.5A		YES	reject
USCH Information	O		9.2.3.28		YES	reject
RL Information		*1*			YES	reject
>RL ID	M		9.2.1.53		–	
>C-ID	M		9.2.1.9		–	
>Frame Offset	M		9.2.1.31		–	
>Special Burst Scheduling	M		9.2.3.18A		–	
>Initial DL Transmission Power	M		DL Power 9.2.1.21		–	
>Maximum DL Power	M		DL Power 9.2.1.21		–	
>Minimum DL Power	M		DL Power 9.2.1.21		–	
>DL Time Slot ISCP Info	O		9.2.3.4F	Applicable to 3.84Mcps TDD and 7.68Mcps TDD only	–	
>DL Time Slot ISCP Info LCR	O		9.2.3.4P	Applicable to 1.28Mcps TDD only	YES	reject
>RL Specific DCH Information	O		9.2.1.53G		YES	ignore

>Delayed Activation	O		9.2.1.24C		YES	reject
>UL Synchronisation Parameters LCR		*0..1*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>>Uplink Synchronisation Step Size	M		9.2.3.26H		–	
>>Uplink Synchronisation Frequency	M		9.2.3.26G		–	
>UARFCN	O		9.2.1.65	Mandatory for 1.28Mcps TDD when using multiple frequencies. Corresponds to Nt [15]	YES	reject
HS-DSCH Information	O		HS-DSCH TDD Information 9.2.3.5F		YES	reject
HS-DSCH-RNTI	C-InfoHSDSCH		9.2.1.31J		YES	reject
HS-PDSCH RL ID	C-InfoHSDSCH		RL ID 9.2.1.53		YES	reject
PDSCH-RL-ID	O		RL ID 9.2.1.53		YES	ignore
E-DCH Information		0..1		3.84Mcps TDD only	YES	reject
>E-PUCH Information	M		9.2.3.45		–	
>E-TFCS Information TDD	M		9.2.3.46		–	
>E-DCH MAC-d Flows Information TDD	M		9.2.3.47		–	
>E-DCH Non-scheduled Grant Information TDD	O		9.2.3.48		–	
>E-DCH TDD Information	M		9.2.3.49		–	
E-DCH Serving RL	O		9.2.1.53		YES	reject
E-DCH Information 7.68Mcps		0..1		7.68Mcps TDD only	YES	reject
>E-PUCH Information	M		9.2.3.45		–	
>E-TFCS Information TDD	M		9.2.3.46		–	
>E-DCH MAC-d Flows Information TDD	M		9.2.3.47		–	
>E-DCH Non-scheduled Grant Information 7.68Mcps TDD	O		9.2.3.64		–	
>E-DCH TDD Information 7.68Mcps	M		9.2.3.65		–	
E-DCH Information 1.28Mcps		*0..1*		1.28Mcps TDD only	YES	reject
>E-PUCH Information LCR	M		9.2.3.45a		–	
>E-TFCS Information TDD	M		9.2.3.46		–	
>E-DCH MAC-d Flows Information TDD	M		9.2.3.47		–	
>E-DCH Non-scheduled Grant Information LCR TDD	O		9.2.3.48a		–	
>E-DCH TDD Information LCR	M		9.2.3.49a		–	
Power Control GAP	O		INTEGER (1..255)	Unit: Number of subframes Applicable to 1.28Mcps TDD only	YES	ignore

Range Bound	Explanation
maxnoCCTrCH	Number of CCTrCHs for one UE

Condition	Explanation
InfoHSDSCH	The IE shall be present if *HS-DSCH Information* IE is present.

9.1.37 RADIO LINK SETUP RESPONSE

9.1.37.1 FDD message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC' shall not be used.	YES	ignore
Communication Control Port ID	M		9.2.1.15		YES	ignore
RL Information Response		*1..<maxnoofRLs>*			EACH	ignore
>RL ID	M		9.2.1.53		–	
>RL Set ID	M		9.2.2.39		–	
>Received Total Wide Band Power	M		9.2.2.39A		–	
>CHOICE *Diversity Indication*	M				–	
>>Combining						
>>>RL ID	M		9.2.1.53	Reference RL ID for the combining	–	
>>Non Combining or First RL						
>>>DCH Information Response	M		9.2.1.20C		–	
>>>E-DCH FDD Information Response	O		9.2.2.13Db		YES	ignore
>Not Used	O		NULL		–	
>SSDT Support Indicator	M		9.2.2.46		–	
>DL Power Balancing Activation Indicator	O		9.2.2.12C		YES	ignore
>E-DCH RL Set ID	O		RL Set ID 9.2.2.39		YES	ignore
>E-DCH FDD DL Control Channel Information	O		9.2.2.13Dc		YES	ignore
>Initial DL DPCH Timing Adjustment	O		DL DPCH Timing Adjustment 9.2.2.10A		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
HS-DSCH Information Response	O		HS-DSCH FDD Information Response 9.2.2.18E		YES	ignore
Continuous Packet Connectivity HS-SCCH less Information Response	O		9.2.2.69		YES	ignore

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE

9.1.37.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC' shall not be used.	YES	ignore
Communication Control Port ID	M		9.2.1.15		YES	ignore
RL Information Response		*0..1*		Mandatory for 3.84Mcps TDD and 7.68Mcps TDD. Not Applicable to 1.28Mcps TDD.	YES	ignore
>RL ID	M		9.2.1.53		–	
>UL Time Slot ISCP Info	M		9.2.3.26D		–	
>UL PhysCH SF Variation	M		9.2.3.26B		–	
>DCH Information Response	O		9.2.1.20C		YES	ignore
>DSCH Information Response	O		9.2.3.5b		YES	ignore
>USCH Information Response	O		9.2.3.29		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
RL Information Response LCR		*0..1*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	ignore
>RL ID	M		9.2.1.53		–	
>UL Time Slot ISCP Info LCR	M		9.2.3.26F		–	
>UL PhysCH SF Variation	M		9.2.3.26B		–	
>DCH Information Response	O		9.2.1.20C		YES	ignore
>DSCH Information Response	O		9.2.3.5b		YES	ignore
>USCH Information Response	O		9.2.3.29		YES	ignore
HS-DSCH Information Response	O		HS-DSCH TDD Information Response 9.2.3.5G		YES	ignore
E-DCH Information Response	O		E-DCH TDD Information Response 9.2.3.50		YES	ignore

9.1.38 RADIO LINK SETUP FAILURE

9.1.38.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
Node B Communication Context ID	C-Success		9.2.1.48	The reserved value "All NBCC' shall not be used	YES	ignore
Communication Control Port ID	O		9.2.1.15		YES	ignore
CHOICE *Cause Level*	M				YES	ignore
>General						
>>Cause	M		9.2.1.6		–	
>RL Specific						
>>Unsuccessful RL Information Response		*1..<maxnoofRLs>*			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>Cause	M		9.2.1.6		–	
>>Successful RL Information Response		*0..<maxnoofRLs>*		Note: There will never be maxnoofRLs repetitions of this sequence.	EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>RL Set ID	M		9.2.2.39		–	
>>>Received Total Wide Band Power	M		9.2.2.39A		–	
>>>CHOICE *Diversity Indication*	M				–	
>>>>Combining						
>>>>>RL ID	M		9.2.1.53	Reference RL ID for the combining	–	
>>>>Non Combining or First RL						
>>>>>DCH Information Response	M		9.2.1.20C		–	
>>>>>E-DCH FDD Information Response	O		9.2.2.13Db		YES	ignore
>>>Not Used	O		NULL		–	
>>>Not Used	O		NULL		–	
>>>SSDT Support Indicator	M		9.2.2.46		–	
>>>DL Power Balancing Activation Indicator	O		9.2.2.12C		YES	ignore
>>>E-DCH RL Set ID	O		RL Set ID 9.2.2.39		YES	ignore
>>>E-DCH FDD DL	O		9.2.2.13Dc		YES	ignore

Control Channel Information						
>>>Initial DL DPCH Timing Adjustment	O		DL DPCH Timing Adjustment 9.2.2.10A		YES	ignore
>>HS-DSCH Information Response	O		HS-DSCH FDD Information Response 9.2.2.18E		YES	ignore
>>Continuous Packet Connectivity HS-SCCH less Information Response	O		9.2.2.69		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

Condition	Explanation
Success	The IE shall be present if at least one of the radio links has been successfully set up.

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE

9.1.38.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
CHOICE *Cause Level*	M				YES	ignore
>General						
>>Cause	M		9.2.1.6		–	
>RL Specific						
>>Unsuccessful RL Information Response		*1*			YES	ignore
>>>RL ID	M		9.2.1.53		–	
>>>Cause	M		9.2.1.6		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.39 RADIO LINK ADDITION REQUEST

9.1.39.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC' shall not be used.	YES	reject
Compressed Mode Deactivation Flag	O		9.2.2.3A		YES	reject
RL Information		*1..<maxnoofRLs-1>*			EACH	notify
>RL ID	M		9.2.1.53		–	
>C-ID	M		9.2.1.9		–	
>Frame Offset	M		9.2.1.31		–	
>Chip Offset	M		9.2.2.2		–	
>Diversity Control Field	M		9.2.1.25		–	
>DL Code Information	M		FDD DL Code Information 9.2.2.14A		–	
>Initial DL Transmission Power	O		DL Power 9.2.1.21	Initial power on DPCH or on F-DPCH	–	
>Maximum DL Power	O		DL Power 9.2.1.21	Maximum allowed power on DPCH or on F-DPCH	–	
>Minimum DL Power	O		DL Power 9.2.1.21	Minimum allowed power on DPCH or on F-DPCH	–	
>Not Used	O		NULL		–	
>Transmit Diversity Indicator	O		9.2.2.53		–	
>DL Reference Power	O		DL power 9.2.1.21	Power on DPCH or on F-DPCH	YES	ignore
>RL Specific DCH Information	O		9.2.1.53G		YES	ignore
>Delayed Activation	O		9.2.1.24C		YES	reject
>E-DCH RL Indication	O		9.2.2.13De		YES	reject
>RL Specific E-DCH Information	O		9.2.2.39a		YES	ignore
>Synchronisation Indicator	O		9.2.2.48A		YES	ignore
>F-DPCH Slot Format	O		9.2.2.93		YES	reject
Initial DL DPCH Timing Adjustment Allowed	O		9.2.2.18K		YES	ignore
Serving E-DCH RL	O		9.2.2.48B		YES	reject
Serving Cell Change CFN	O		CFN 9.2.1.7		YES	reject
HS-DSCH Serving Cell Change Information	O		9.2.2.18Eb		YES	reject
E-DPCH Information		*0..1*			YES	reject
>Maximum Set of E-DPDCHs	M		9.2.2.20C		–	

>Puncture Limit	M		9.2.1.50		–	
>E-TFCS Information	M		9.2.2.13Dh		–	
>E-TTI	M		9.2.2.13Di		–	
>E-DPCCH Power Offset	M		9.2.2.13Dj		–	
>E-RGCH 2-Index-Step Threshold	M		9.2.2.13Ig		–	
>E-RGCH 3-Index-Step Threshold	M		9.2.2.13Ih		–	
>HARQ Info for E-DCH	M		9.2.2.18ba		–	
>HS-DSCH Configured Indicator	M		9.2.2.18Ca		YES	reject
E-DCH FDD Information	C-EDPCHInfo		9.2.2.13Da		YES	reject

Condition	Explanation
EDPCHInfo	This IE shall be present if *E-DPCH Information* IE is present.

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE

9.1.39.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC' shall not be used.	YES	reject
UL CCTrCH Information		*0..<maxnoCCTrCH>*			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
>UL DPCH Information		*0..1*		Applicable to 3.84Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information	M		9.2.3.26C		–	
>UL DPCH Information LCR		*0..1*		Applicable to 1.28Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information LCR	M		9.2.3.26E		–	
>TDD TPC UL Step Size	O		9.2.3.21a	Applicable to 1.28Mcps TDD only	YES	reject
>UL DPCH Information 7.68Mcps		*0..1*		Applicable to 7.68Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information 7.68Mcps	M		9.2.3.38		–	
DL CCTrCH Information		*0..<maxnoCCTrCH>*			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
>DL DPCH information		*0..1*		Applicable to 3.84Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>DL Timeslot Information	M		9.2.3.4E		–	
>DL DPCH information LCR		*0..1*		Applicable to 1.28Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>DL Timeslot Information LCR	M		9.2.3.4O		–	
>CCTrCH Initial DL	O		DL Power		YES	ignore

Transmission Power			9.2.1.21			
>TDD TPC DL Step Size	O		9.2.3.21		YES	reject
>CCTrCH Maximum DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>CCTrCH Minimum DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>DL DPCH information 7.68Mcps		*0..1*		Applicable to 7.68Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>DL Timeslot Information 7.68Mcps	M		9.2.3.39		–	
RL Information		*1*			YES	reject
>RL ID	M		9.2.1.53		–	
>C-ID	M		9.2.1.9		–	
>Frame Offset	M		9.2.1.31		–	
>Diversity Control Field	M		9.2.1.25		–	
>Initial DL Transmission Power	O		DL Power 9.2.1.21		–	
>Maximum DL Power	O		DL Power 9.2.1.21		–	
>Minimum DL Power	O		DL Power 9.2.1.21		–	
>DL Time Slot ISCP Info	O		9.2.3.4F	Applicable to 3.84Mcps TDD and 7.68Mcps TDD only	–	
>DL Time Slot ISCP Info LCR	O		9.2.3.4P	Applicable to 1.28Mcps TDD only	YES	reject
>RL Specific DCH Information	O		9.2.1.53G		YES	ignore
>Delayed Activation	O		9.2.1.24C		YES	reject
>UL Synchronisation Parameters LCR		*0..1*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>>Uplink Synchronisation Step Size	M		9.2.3.26H		–	
>>Uplink Synchronisation Frequency	M		9.2.3.26G		–	
>UARFCN	O		9.2.1.65	Mandatory for 1.28Mcps TDD when using multiple frequencies. Corresponds to Nt [15]	YES	reject
HS-DSCH Information	O		HS-DSCH TDD Information 9.2.3.5F		YES	reject
HS-DSCH-RNTI	C-HSDSCH RadioLink		9.2.1.31J		YES	reject
HS-PDSCH RL ID	O		RL ID 9.2.1.53		YES	reject
E-DCH Information		0..1		3.84Mcps TDD only	YES	reject
>E-PUCH Information	M		9.2.3.45		–	

>E-TFCS Information TDD	M		9.2.3.46		–	
>E-DCH MAC-d Flows Information TDD	M		9.2.3.47		–	
>E-DCH Non-scheduled Grant Information TDD	O		9.2.3.48		–	
>E-DCH TDD Information	M		9.2.3.49		–	
E-DCH Serving RL	O		9.2.1.53		YES	reject
E-DCH Information 7.68Mcps		0..1		7.68Mcps TDD only	YES	reject
>E-PUCH Information	M		9.2.3.45		–	
>E-TFCS Information TDD	M		9.2.3.46		–	
>E-DCH MAC-d Flows Information TDD	M		9.2.3.47		–	
>E-DCH Non-scheduled Grant Information 7.68Mcps TDD	O		9.2.3.64		–	
>E-DCH TDD Information 7.68Mcps	M		9.2.3.65		–	
E-DCH Information 1.28Mcps		*0..1*		1.28Mcps TDD only	YES	reject
>E-PUCH Information LCR	M		9.2.3.45a		–	
>E-TFCS Information TDD	M		9.2.3.46		–	
>E-DCH MAC-d Flows Information TDD	M		9.2.3.47		–	
>E-DCH Non-scheduled Grant Information LCR TDD	O		9.2.3.48a		–	
>E-DCH TDD Information LCR	M		9.2.3.49a		–	
Power Control GAP	O		INTEGER (1..255)	Unit: Number of subframes Applicable to 1.28Mcps TDD only	YES	ignore

Range Bound	Explanation
maxnoCCTrCH	Number of CCTrCH for one UE

Condition	Explanation
HSDSCHRadioLink	The IE shall be present if *HS-PDSCH RL ID* IE is present

9.1.40 RADIO LINK ADDITION RESPONSE

9.1.40.1 FDD message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
RL Information Response		*1..<maxnoofRLs-1>*			EACH	ignore
>RL ID	M		9.2.1.53		–	
>RL Set ID	M		9.2.2.39		–	
>Received Total Wide Band Power	M		9.2.2.39A		–	
>CHOICE *Diversity Indication*	M				–	
>>*Combining*						
>>>RL ID	M		9.2.1.53	Reference RL	–	
>>>E-DCH FDD Information Response	O		9.2.2.13Db		YES	ignore
>>*Non Combining*						
>>>DCH Information Response	M		9.2.1.20C		–	
>>>E-DCH FDD Information Response	O		9.2.2.13Db		YES	ignore
>SSDT Support Indicator	M		9.2.2.46		–	
>DL Power Balancing Activation Indicator	O		9.2.2.12C		YES	ignore
>E-DCH RL Set ID	O		RL Set ID 9.2.2.39		YES	ignore
>E-DCH FDD DL Control Channel Information	O		9.2.2.13Dc		YES	ignore
>Initial DL DPCH Timing Adjustment	O		DL DPCH Timing Adjustment 9.2.2.10A		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
HS-DSCH Serving Cell Change Information Response	O		9.2.2.18Ec		YES	ignore
E-DCH Serving Cell Change Information Response	O		9.2.2.18Ed		YES	ignore
MAC-hs Reset Indicator	O		9.2.1.38Ac		YES	ignore

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE

9.1.40.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
RL Information Response		*0..1*		Mandatory for 3.84Mcps TDD and 7.68Mcps TDD. Not Applicable to 1.28Mcps TDD.	YES	ignore
>RL ID	M		9.2.1.53		–	
>UL Time Slot ISCP Info	M		9.2.3.26D		–	
>UL PhysCH SF Variation	M		9.2.3.26B		–	
>DCH Information		*0..1*			–	
>>CHOICE *Diversity Indication*	M				–	
>>>*Combining*				Indicates whether the old Transport Bearer shall be reused or not		
>>>>RL ID	M		9.2.1.53	Reference RL	–	
>>>*Non Combining*						
>>>>DCH Information Response	M		9.2.1.20C		–	
>DSCH Information Response	O		9.2.3.5b		YES	ignore
>USCH Information Response	O		9.2.3.29		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
RL Information Response LCR		*0..1*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	ignore
>RL ID	M		9.2.1.53		–	
>UL Time Slot ISCP Info LCR	M		9.2.3.26F		–	
>UL PhysCH SF Variation	M		9.2.3.26B		–	
>DCH Information		*0..1*			–	
>>CHOICE *Diversity indication*	M				–	
>>>*Combining*				Indicates whether the old Transport Bearer shall be reused or not		
>>>>RL ID	M		9.2.1.53	Reference RL	–	
>>>*Non Combining*						
>>>>DCH Information Response	M		9.2.1.20C		–	
>DSCH Information Response	O		9.2.3.5b		YES	ignore

>USCH Information Response	O		9.2.3.29		YES	ignore
HS-DSCH Information Response	O		HS-DSCH TDD Information Response 9.2.3.5G		YES	ignore
E-DCH Information Response	O		E-DCH TDD Information Response 9.2.3.50		YES	ignore

9.1.41 RADIO LINK ADDITION FAILURE

9.1.41.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
CHOICE *Cause Level*	M				YES	ignore
>General						
>>Cause	M		9.2.1.6		–	
>RL Specific						
>>Unsuccessful RL Information Response		*1..<maxnoofRLs-1>*			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>Cause	M		9.2.1.6		–	
>>Successful RL Information Response		*0..<maxnoofRLs-2>*			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>RL Set ID	M		9.2.2.39		–	
>>>Received Total Wide Band Power	M		9.2.2.39A		–	
>>>CHOICE *Diversity Indication*	M				–	
>>>>Combining						
>>>>>RL ID	M		9.2.1.53	Reference RL	–	
>>>>>E-DCH FDD Information Response	O		9.2.2.13Db		YES	ignore
>>>>Non Combining						
>>>>>DCH Information Response	M		9.2.1.20C		–	
>>>>>E-DCH FDD Information Response	O		9.2.2.13Db		YES	ignore
>>>SSDT Support Indicator	M		9.2.2.46		–	
>>>DL Power Balancing Activation Indicator	O		9.2.2.12C		YES	ignore
>>>E-DCH RL Set ID	O		RL Set ID 9.2.2.39		YES	ignore
>>>E-DCH FDD DL Control Channel Information	O		9.2.2.13Dc		YES	ignore
>>>Initial DL DPCH Timing Adjustment	O		DL DPCH Timing Adjustment 9.2.2.10A		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
HS-DSCH Serving Cell Change Information Response	O		9.2.2.18Ec		YES	ignore

E-DCH Serving Cell Change Information Response	O		9.2.2.18Ed		YES	ignore

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE

9.1.41.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
CHOICE *Cause Level*	M				YES	ignore
>General						
>>Cause	M		9.2.1.6		–	
>RL Specific						
>>Unsuccessful RL Information Response		*1*			YES	ignore
>>>RL ID	M		9.2.1.53		–	
>>>Cause	M		9.2.1.6		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.42 RADIO LINK RECONFIGURATION PREPARE

9.1.42.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC' shall not be used.	YES	reject
UL DPCH Information		*0..1*			YES	reject
>UL Scrambling Code	O		9.2.2.59		–	
>UL SIR Target	O		UL SIR 9.2.1.67A		–	
>Min UL Channelistion Code Length	O		9.2.2.22		–	
>Max Number of UL DPDCHs	C-CodeLen		9.2.2.21		–	
>Puncture Limit	O		9.2.1.50	For UL	–	
>TFCS	O		9.2.1.58		–	
>UL DPCCH Slot Format	O		9.2.2.57		–	
>Diversity Mode	O		9.2.2.9		–	
>Not Used	O		NULL		–	
>Not Used	O		NULL		–	
>UL DPDCH Indicator For E-DCH Operation	O		9.2.2.61		YES	reject
DL DPCH Information		*0..1*			YES	reject
>TFCS	O		9.2.1.58		–	
>DL DPCH Slot Format	O		9.2.2.10		–	
>TFCI Signalling Mode	O		9.2.2.50		–	
>TFCI Presence	C-SlotFormat		9.2.1.57		–	
>Multiplexing Position	O		9.2.2.23		–	
>Not Used	O		NULL		–	
>Not Used	O		NULL		–	
>Limited Power Increase	O		9.2.2.18A		–	
>DL DPCH Power Information		*0..1*			YES	reject
>>Power Offset Information		*1*			–	
>>>PO1	M		Power Offset 9.2.2.29	Power offset for the TFCI bits	–	
>>>PO2	M		Power Offset 9.2.2.29	Power offset for the TPC bits	–	
>>>PO3	M		Power Offset 9.2.2.29	Power offset for the pilot bits	–	
>>FDD TPC DL Step Size	M		9.2.2.16		–	
>>Inner Loop DL PC Status	M		9.2.2.18B		–	
DCHs To Modify	O		DCHs FDD To Modify 9.2.2.4E		YES	reject
DCHs To Add	O		DCH FDD Information		YES	reject

			9.2.2.4D			
DCHs To Delete		*0..<maxnoofDCHs>*			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
RL Information		*0..<maxnoofRLs>*			EACH	reject
>RL ID	M		9.2.1.53		–	
>DL Code Information	O		FDD DL Code Information 9.2.2.14A		–	
>Maximum DL Power	O		DL Power 9.2.1.21	Maximum allowed power on DPCH or on F-DPCH	–	
>Minimum DL Power	O		DL Power 9.2.1.21	Minimum allowed power on DPCH or on F-DPCH	–	
>Not Used	O		NULL		–	
>Not Used	O		NULL		–	
>Transmit Diversity Indicator	C-Diversity mode		9.2.2.53		–	
>DL Reference Power	O		DL Power 9.2.1.21	Power on DPCH or on F-DPCH	YES	ignore
>RL Specific DCH Information	O		9.2.1.53G		YES	ignore
>DL DPCH Timing Adjustment	O		9.2.2.10A	Required RL Timing Adjustment	YES	reject
>Primary CPICH Usage For Channel Estimation	O		9.2.2.33A		YES	ignore
>Secondary CPICH Information Change	O		9.2.2.43A		YES	ignore
>E-DCH RL Indication	O		9.2.2.13De		YES	reject
>RL Specific E-DCH Information	O		9.2.2.39a		YES	ignore
>F-DPCH Slot Format	O		9.2.2.93		YES	reject
Transmission Gap Pattern Sequence Information	O		9.2.2.53A		YES	reject
Signalling Bearer Request Indicator	O		9.2.1.55A		YES	reject
HS-DSCH Information	O		HS-DSCH FDD Information 9.2.2.18D		YES	reject
HS-DSCH Information To Modify	O		9.2.1.31H		YES	reject
HS-DSCH MAC-d Flows To Add	O		HS-DSCH MAC-d Flows Information 9.2.1.31IA		YES	reject
HS-DSCH MAC-d Flows To Delete	O		9.2.1.31IB		YES	reject
HS-DSCH-RNTI	C-HSDSCH RadioLink		9.2.1.31J		YES	reject
HS-PDSCH RL ID	O		RL ID 9.2.1.53		YES	reject
E-DPCH Information		*0..1*			YES	reject

>Maximum Set of E-DPDCHs	O		9.2.2.20C		–	
>Puncture Limit	O		9.2.1.50		–	
>E-TFCS Information	O		9.2.2.13Dh		–	
>E-TTI	O		9.2.2.13Di		–	
>E-DPCCH Power Offset	O		9.2.2.13Dj		–	
>E-RGCH 2-Index-Step Threshold	O		9.2.2.13Ig		–	
>E-RGCH 3-Index-Step Threshold	O		9.2.2.13Ih		–	
>HARQ Info for E-DCH	O		9.2.2.18ba		–	
>HS-DSCH Configured Indicator	O		9.2.2.18Ca		–	
E-DCH FDD Information	O		E-DCH FDD Information 9.2.2.13Da		YES	reject
E-DCH FDD Information To Modify	O		9.2.2.13Df		YES	reject
E-DCH MAC-d Flows To Add	O		E-DCH MAC-d Flows Information 9.2.2.13M		YES	reject
E-DCH MAC-d Flows To Delete	O		9.2.1.73		YES	reject
Serving E-DCH RL	O		9.2.2.48B		YES	reject
F-DPCH Information		*0..1*			YES	reject
>Power Offset Information		*1*			–	
>>PO2	M		Power Offset 9.2.2.29	This IE shall be ignored by Node B.	–	
>FDD TPC DL Step Size	M		9.2.2.16		–	
>Limited Power Increase	M		9.2.2.18A		–	
>Inner Loop DL PC Status	M		9.2.2.18B		–	
Fast Reconfiguration Mode	O		9.2.2.62		YES	ignore
CPC Information		*0..1*			YES	reject
>Continuous Packet Connectivity DTX-DRX Information	O		9.2.2.66		–	
>Continuous Packet Connectivity DTX-DRX Information To Modify	O		9.2.2.67		–	
>Continuous Packet Connectivity HS-SCCH less Information	O		9.2.2.68		–	
>Continuous Packet Connectivity HS-SCCH less Deactivate Indicator	O		9.2.2.69A		YES	reject

Condition	Explanation
CodeLen	The IE shall be present if the *Min UL Channelisation Code Length* IE is equals to 4.
SlotFormat	The IE shall be present if the *DL DPCH Slot Format* IE is equal to any of the values from 12 to 16.
Diversity mode	The IE shall be present if the *Diversity Mode* IE is present in the *UL DPCH Information* IEand is not set to "none".
HSDSCH Radio Link	The IE shall be present if *HS-PDSCH RL ID* IE is present.

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCHs for a UE
maxnoofRLs	Maximum number of RLs for a UE

9.1.42.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC' shall not be used.	YES	reject
UL CCTrCH To Add		*0..<maxnoofCCTrCHs>*			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	M		9.2.1.58		–	
>TFCI Coding	M		9.2.3.22		–	
>Puncture Limit	M		9.2.1.50		–	
>UL DPCH To Add Per RL		*0..<maxnoofRLs>*		See note 1 below	–	
>>UL DPCH Information		*0..1*		Applicable to 3.84Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>UL Timeslot Information	M		9.2.3.26C		–	
>>UL DPCH Information LCR		*0..1*		Applicable to 1.28Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>UL Timeslot Information LCR	M		9.2.3.26E		–	
>>UL SIR Target	O		UL SIR 9.2.1.67A	Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD	YES	reject
>>TDD TPC UL Step Size	O		9.2.3.21a	Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>>RL ID	O		9.2.1.53		YES	ignore
>>UL DPCH Information 7.68Mcps		*0..1*		Applicable to 7.68Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>UL Timeslot Information 7.68Mcps	M		9.2.3.38		–	
UL CCTrCH To Modify		*0..<maxnoofCCTrCHs>*			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	

>TFCS	O		9.2.1.58		–	
>TFCI Coding	O		9.2.3.22		–	
>Puncture Limit	O		9.2.1.50		–	
>UL DPCH To Modify Per RL		*0..<maxnoofRLs>*		See note 1 below	–	
>>UL DPCH To Add		*0..1*		Applicable to 3.84Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>UL Timeslot Information	M		9.2.3.26C		–	
>>UL DPCH To Modify		*0..1*			YES	reject
>>>Repetition Period	O		9.2.3.16		–	
>>>Repetition Length	O		9.2.3.15		–	
>>>TDD DPCH Offset	O		9.2.3.19A		–	
>>>UL Timeslot Information		*0..<maxnoofULts>*		Applicable to 3.84Mcps TDD only	–	
>>>>Time Slot	M		9.2.3.23		–	
>>>>Midamble Shift And Burst Type	O		9.2.3.7		–	
>>>>TFCI Presence	O		9.2.1.57		–	
>>>>UL Code Information		*0..<maxnoofDPCHs>*			–	
>>>>>DPCH ID	M		9.2.3.5		–	
>>>>>TDD Channelisation Code	O		9.2.3.19		–	
>>>UL Timeslot Information LCR		*0..<maxnoofULtsLCR>*		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>Midamble Shift LCR	O		9.2.3.7A			
>>>>TFCI Presence	O		9.2.1.57		–	
>>>>UL Code Information LCR		*0..<maxnoofDPCHsLCR>*			–	
>>>>>DPCH ID	M		9.2.3.5		–	
>>>>>TDD Channelisation Code LCR	O		9.2.3.19a		–	
>>>>>TDD UL DPCH Time Slot Format LCR	O		9.2.3.21C		YES	reject
>>>>PLCCH Information	O		9.2.3.31		YES	reject
>>>UL Timeslot Information 7.68Mcps		*0..<maxnoofULts>*		Applicable to 7.68Mcps TDD only	GLOBAL	reject
>>>>Time Slot	M		9.2.3.23		–	
>>>>Midamble Shift And Burst Type 7.68Mcps	O		9.2.3.35		–	
>>>>TFCI Presence	O		9.2.1.57		–	
>>>>UL Code Information 7.68Mcps		*0..<maxnoofDPCHs>*			–	
>>>>>DPCH ID	M		9.2.3.5		–	

>>>>>TDD Channelisation Code 7.68Mcps	O		9.2.3.34		–	
>>UL DPCH To Delete		*0..<maxnoofDPCHs>*			GLOBAL	reject
>>>DPCH ID	M		9.2.3.5		–	
>>UL DPCH To Add LCR		*0..1*		Applicable to 1.28Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>UL Timeslot Information LCR	M		9.2.3.26E		–	
>>UL SIR Target	O		UL SIR 9.2.1.67A	Applicable to 1.28Mcps TDD only	YES	reject
>>TDD TPC UL Step Size	O		9.2.3.21a	Applicable to 1.28Mcps TDD only	YES	reject
>>RL ID	O		9.2.1.53		YES	ignore
>>UL DPCH To Add 7.68Mcps		*0..1*		Applicable to 7.68Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>UL Timeslot Information 7.68Mcps	M		9.2.3.38		–	
UL CCTrCH To Delete		*0..<maxnoofCCTrCHs>*			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
DL CCTrCH To Add		*0..<maxnoofCCTrCHs>*			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	M		9.2.1.58		–	
>TFCI Coding	M		9.2.3.22		–	
>Puncture Limit	M		9.2.1.50		–	
>TPC CCTrCH List		*0..<maxnoofCCTrCHs>*		List of uplink CCTrCH which provide TPC	–	
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.3		–	
>DL DPCH To Add Per RL		*0..<maxnoofRLs>*		See Note 1 below	–	
>>DL DPCH Information		*0..1*		Applicable to 3.84Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>DL Timeslot Information	M		9.2.3.4E		–	
>>DL DPCH Information LCR		*0..1*		Applicable to 1.28Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>DL Timeslot	M		9.2.3.4O		–	

Information LCR						
>>CCTrCH Initial DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>>TDD TPC DL Step Size	O		9.2.3.21		YES	reject

>>CCTrCH Maximum DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>>CCTrCH Minimum DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>>RL ID	O		9.2.1.53		YES	ignore
>>DL DPCH Information 7.68Mcps		*0..1*		Applicable to 7.68Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>DL Timeslot Information 7.68Mcps	M		9.2.3.39		–	
DL CCTrCH To Modify		*0..<maxnoofCCTrCHs>*			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	O		9.2.1.58		–	
>TFCI Coding	O		9.2.3.22		–	
>Puncture Limit	O		9.2.1.50		–	
>TPC CCTrCH List		*0..<maxnoofCCTrCHs>*		List of uplink CCTrCH which provide TPC	–	
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.3		–	
>DL DPCH To Modify Per RL		*0..<maxnoofRLs>*		See Note 1 below	–	
>>DL DPCH To Add		*0..1*		Applicable to 3.84Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>DL Timeslot Information	M		9.2.3.4E		–	
>>DL DPCH To Modify		*0..1*			YES	reject
>>>Repetition Period	O		9.2.3.16		–	
>>>Repetition Length	O		9.2.3.15		–	
>>>TDD DPCH Offset	O		9.2.3.19A		–	
>>>DL Timeslot Information		*0..<maxnoofDLts>*		Applicable to 3.84Mcps TDD only	–	
>>>>Time Slot	M		9.2.3.23		–	
>>>>Midamble Shift And Burst Type	O		9.2.3.7		–	
>>>>TFCI Presence	O		9.2.1.57		–	
>>>>DL Code Information		*0..<maxnoofDPCHs>*			–	
>>>>>DPCH ID	M		9.2.3.5		–	
>>>>>TDD Channelisation Code	O		9.2.3.19		–	
>>>DL Timeslot Information LCR		*0..<maxnoofDLtsLCR>*		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>Midamble Shift LCR	O		9.2.3.7A			
>>>>TFCI Presence	O		9.2.1.57		–	
>>>>DL Code Information LCR		*0..<maxnoofDPCHsLCR>*			–	

>>>>>DPCH ID	M		9.2.3.5		–	
>>>>>TDD Channelisation Code LCR	O		9.2.3.19a		–	
>>>>>TDD DL DPCH Time Slot Format LCR	O		9.2.3.19D		YES	reject
>>>>Maximum DL Power to Modify LCR	O		DL Power 9.2.1.21	Maximum allowed power on DPCH	YES	ignore
>>>>Minimum DL Power to Modify LCR	O		DL Power 9.2.1.21	Minimum allowed power on DPCH	YES	ignore
>>>DL Timeslot Information 7.68Mcps		*0..<maxnoofDLts>*		Applicable to 7.68Mcps TDD only	GLOBAL	reject
>>>>Time Slot	M		9.2.3.23		–	
>>>>Midamble Shift And Burst Type 7.68Mcps	O		9.2.3.35		–	
>>>>TFCI Presence	O		9.2.1.57		–	
>>>>DL Code Information 7.68Mcps		*0..<maxnoofDPCHs768>*			–	
>>>>>DPCH ID 7.68Mcps	M		9.2.3.42		–	
>>>>>TDD Channelisation Code 7.68Mcps	O		9.2.3.34		–	
>>DL DPCH To Delete		*0..<maxnoofDPCHs>*			GLOBAL	reject
>>>DPCH ID	M		9.2.3.5		–	
>>DL DPCH To Add LCR		*0..1*		Applicable to 1.28Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>DL Timeslot Information LCR	M		9.2.3.4O		–	
>>TDD TPC DL Step Size	O		9.2.3.21		YES	reject
>>Maximum CCTrCH DL Power to Modify	O		DL Power 9.2.1.21		YES	ignore
>>Minimum CCTrCH DL Power to Modify	O		DL Power 9.2.1.21		YES	ignore
>>RL ID	O		9.2.1.53		YES	ignore
>>DL DPCH To Add 7.68Mcps		*0..1*		Applicable to 7.68Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>DL Timeslot Information 7.68Mcps	M		9.2.3.39		–	
DL CCTrCH To Delete		*0..<maxnoofCCTrCHs>*			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
DCHs To Modify	O		DCHs TDD To Modify 9.2.3.4D		YES	reject

DCHs To Add	O		DCH TDD Information 9.2.3.4C		YES	reject
DCHs To Delete		*0..<maxnoofDCHs>*			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
DSCH To Modify		*0..<maxnoofDSCHs>*			GLOBAL	reject
>DSCH ID	M		9.2.3.5a		–	
>CCTrCH ID	O		9.2.3.3	DL CCTrCH in which the DSCH is mapped	–	
>Transport Format Set	O		9.2.1.59		–	
>Allocation/Retention Priority	O		9.2.1.1A		–	
>Frame Handling Priority	O		9.2.1.30		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
>Transport Bearer Request Indicator	M		9.2.1.62A		–	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
DSCH To Add	O		DSCH TDD Information 9.2.3.5A		YES	reject
DSCH To Delete		*0..<maxnoofDSCHs>*			GLOBAL	reject
>DSCH ID	M		9.2.3.5a		–	
USCH To Modify		*0..<maxnoofUSCHs>*			GLOBAL	reject
>USCH ID	M		9.2.3.27		–	
>Transport Format Set	O		9.2.1.59		–	
>Allocation/Retention Priority	O		9.2.1.1A		–	
>CCTrCH ID	O		9.2.3.3	UL CCTrCH in which the USCH is mapped	–	
>Transport Bearer Request Indicator	M		9.2.1.62A		–	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore

>TNL QoS	O		9.2.1.58A		YES	ignore
USCH To Add	O		USCH Information 9.2.3.28		YES	reject
USCH To Delete		*0..<maxnoofUSCHs>*			GLOBAL	reject
>USCH ID	M		9.2.3.27		–	
RL Information		*0..<maxnoofRLs>*		See Note 1 below	YES	reject
>RL ID	M		9.2.1.53		–	
>Maximum Downlink Power	O		DL Power 9.2.1.21		–	
>Minimum Downlink Power	O		DL Power 9.2.1.21		–	
>Initial DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>RL Specific DCH Information	O		9.2.1.53G		YES	ignore
>UL Synchronisation Parameters LCR		*0..1*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	ignore
>>Uplink Synchronisation Step Size	M		9.2.3.26H		–	
>>Uplink Synchronisation Frequency	M		9.2.3.26G		–	
>DL Time Slot ISCP Info LCR	O		9.2.3.4P	Applicable to 1.28Mcps TDD only	YES	ignore
>UARFCN	O		9.2.1.65	Applicable to 1.28Mcps TDD when using multiple frequencies. Corresponds to Nt [15]	YES	reject
Signalling Bearer Request Indicator	O		9.2.1.55A		YES	reject
HS-DSCH Information	O		HS-DSCH TDD Information 9.2.3.5F		YES	reject
HS-DSCH Information To Modify	O		9.2.1.31H		YES	reject
HS-DSCH MAC-d Flows To Add	O		HS-DSCH MAC-d Flows Information 9.2.1.31IA		YES	reject
HS-DSCH MAC-d Flows To Delete	O		9.2.1.31IB		YES	reject
HS-DSCH-RNTI	C-HSDSCH RadioLink		9.2.1.31J		YES	reject
HS-PDSCH RL ID	O		RL ID 9.2.1.53		YES	reject
PDSCH-RL-ID	O		RL ID 9.2.1.53		YES	ignore
E-DCH Information		*0..1*		3.84Mcps TDD only	YES	reject
>E-PUCH Information	O		9.2.3.45		–	
>E-TFCS Information TDD	O		9.2.3.46		–	

>E-DCH MAC-d Flows to Add	O		9.2.3.47		–	
>E-DCH MAC-d Flows to Delete	O		9.2.1.73		–	
>E-DCH Non-scheduled Grant Information TDD	O		9.2.3.48		–	
>E-DCH TDD Information	O		9.2.3.49		–	
>E-DCH TDD Information to Modify	O		9.2.3.52		–	
E-DCH Serving RL	O		9.2.1.53		YES	reject
E-DCH Information 7.68Mcps		*0..1*		7.68Mcps TDD only	YES	reject
>E-PUCH Information	O		9.2.3.45		–	
>E-TFCS Information TDD	O		9.2.3.46		–	
>E-DCH MAC-d Flows to Add	O		9.2.3.47		–	
>E-DCH MAC-d Flows to Delete	O		9.2.1.73		–	
>E-DCH Non-scheduled Grant Information 7.68Mcps TDD	O		9.2.3.64		–	
>E-DCH TDD Information 7.68Mcps	O		9.2.3.65		–	
>E-DCH TDD Information to Modify	O		9.2.3.52		–	
E-DCH Information 1.28Mcps		*0..1*		1.28Mcps TDD only	YES	reject
>E-PUCH Information LCR	O		9.2.3.45a		–	
>E-TFCS Information TDD	O		9.2.3.46		–	
>E-DCH MAC-d Flows to Add	O		9.2.3.47		–	
>E-DCH MAC-d Flows to Delete	O		9.2.1.73		–	
>E-DCH Non-scheduled Grant Information LCR TDD	O		9.2.3.48a		–	
>E-DCH TDD Information LCR	O		9.2.3.49a		–	
>E-DCH TDD Information to Modify	O		9.2.3.52		–	

Note 1: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxnoofRLs are represented by separate ASN.1 structures with different criticalities.

Condition	Explanation
HSDSCHRadioLink	The IE shall be present if *HS-PDSCH RL ID* IE is present.

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCHs for a UE
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE
maxnoofDPCHs	Maximum number of DPCHs in one CCTrCH for 3.84Mcps TDD. Maximum number of uplink DPCHs in one CCTrCH for 7.68Mcps TDD
maxnoofDPCHsLCR	Maximum number of DPCHs in one CCTrCH for 1.28Mcps TDD
maxnoofDPCHs768	Maximum number of downlink DPCHs in one CCTrCH for 7.68Mcps TDD
maxnoofDSCHs	Maximum number of DSCHs for one UE
maxnoofUSCHs	Maximum number of USCHs for one UE
maxnoofDLts	Maximum number of Downlink time slots per Radio Link for 3.84Mcps TDD
maxnoofDLtsLCR	Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD
maxnoofULts	Maximum number of Uplink time slots per Radio Link for 3.84Mcps TDD
maxnoofULtsLCR	Maximum number of Uplink time slots per Radio Link for 1.28Mcps TDD
maxnoofRLs	Maximum number of RLs for one UE

9.1.43 RADIO LINK RECONFIGURATION READY

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
RL Information Response		*0..<maxnoofRLs>*			EACH	ignore
>RL ID	M		9.2.1.53		–	
>DCH Information Response	O		9.2.1.20C		YES	ignore
>DSCH Information Response	O		9.2.3.5b	TDD only	YES	ignore
>USCH Information Response	O		9.2.3.29	TDD only	YES	ignore
>Not Used	O		NULL		–	
>DL Power Balancing Updated Indicator	O		9.2.2.12D		YES	ignore
>E-DCH RL Set ID	O		RL Set ID 9.2.2.39		YES	ignore
>E-DCH FDD DL Control Channel Information	O		9.2.2.13Dc		YES	ignore
>E-DCH FDD Information Response	O		9.2.2.13Db		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
Target Communication Control Port ID	O		Communication Control Port ID 9.2.1.15		YES	ignore
HS-DSCH FDD Information Response	O		9.2.2.18E	FDD only	YES	ignore
HS-DSCH TDD Information Response	O		9.2.3.5G	TDD only	YES	ignore
E-DCH TDD Information Response	O		E-DCH TDD Information Response 9.2.3.50	TDD only	YES	ignore
MAC-hs Reset Indicator	O		9.2.1.38Ac		YES	ignore
Fast Reconfiguration Permission	O		9.2.2.63	FDD only	YES	ignore
Continuous Packet Connectivity HS-SCCH less Information Response	O		9.2.2.69	FDD only	YES	ignore

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for a UE

9.1.44 RADIO LINK RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
CHOICE *Cause Level*	M				YES	ignore
>General						
>>Cause	M		9.2.1.6		YES	ignore
>RL Specific						
>>RLs Causing Reconfiguration Failure		*0..<maxnoofRLs>*			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>Cause	M		9.2.1.6		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for a UE

9.1.45 RADIO LINK RECONFIGURATION COMMIT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC' shall not be used.	YES	ignore
CFN	M		9.2.1.7		YES	ignore
Active Pattern Sequence Information	O		9.2.2.A	FDD only	YES	ignore
Fast Reconfiguration Mode	O		9.2.2.62	FDD only	YES	reject

9.1.46 RADIO LINK RECONFIGURATION CANCEL

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC' shall not be used.	YES	ignore

9.1.47 RADIO LINK RECONFIGURATION REQUEST

9.1.47.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC' shall not be used.	YES	reject
UL DPCH Information		*0..1*			YES	reject
>TFCS	O		9.2.1.58	For the UL.	–	
>UL DPDCH Indicator For E-DCH Operation	C-EDPCHInfo		9.2.2.61		YES	reject
DL DPCH Information		*0..1*			YES	reject
>TFCS	O		9.2.1.58	For the DL.	–	
>TFCI Signalling Mode	O		9.2.2.50		–	
>Limited Power Increase	O		9.2.2.18A		–	
DCHs To Modify	O		DCHs FDD To Modify 9.2.2.4E		YES	reject
DCHs To Add	O		DCH FDD Information 9.2.2.4D		YES	reject
DCHs To Delete		*0..<maxnoofDCHs>*			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
Radio Link Information		*0..<maxnoofRLs>*			EACH	reject
>RL ID	M		9.2.1.53		–	
>Maximum DL Power	O		DL Power 9.2.1.21	Maximum allowed power on DPCH or on F-DPCH	–	
>Minimum DL Power	O		DL Power 9.2.1.21	Minimum allowed power on DPCH or on F-DPCH	–	
>DL Code Information	C-SF/2		FDD DL Code Information 9.2.2.14A		–	
>DL Reference Power	O		DL Power 9.2.1.21	Power on DPCH or on F-DPCH	YES	ignore
>RL Specific DCH Information	O		9.2.1.53G		YES	ignore
>E-DCH RL Indication	O		9.2.2.13De		YES	reject
>RL Specific E-DCH Information	O		9.2.2.39a		YES	ignore
>F-DPCH Slot Format	O		9.2.2.93		YES	reject
Transmission Gap Pattern Sequence Information	O		9.2.2.53A		YES	reject
Signalling Bearer Request Indicator	O		9.2.1.55A		YES	reject
HS-DSCH Information	O		HS-DSCH FDD		YES	reject

			Information 9.2.2.18D			
HS-DSCH Information To Modify Unsynchronised	O		9.2.1.31HA		YES	reject
HS-DSCH MAC-d Flows To Add	O		HS-DSCH MAC-d Flows Information 9.2.1.31IA		YES	reject
HS-DSCH MAC-d Flows To Delete	O		9.2.1.31IB		YES	reject
HS-DSCH-RNTI	C-HSDSCH RadioLink		9.2.1.31J		YES	reject
HS-PDSCH RL ID	O		RL ID 9.2.1.53		YES	reject
E-DPCH Information		*0..1*			YES	reject
>Maximum Set of E-DPDCHs	O		9.2.2.20C		–	
>Puncture Limit	O		9.2.1.50		–	
>E-TFCS Information	O		9.2.2.13Dh		–	
>E-TTI	O		9.2.2.13Di		–	
>E-DPCCH Power Offset	O		9.2.2.13Dj		–	
>E-RGCH 2-Index-Step Threshold	O		9.2.2.13Ig		–	
>E-RGCH 3-Index-Step Threshold	O		9.2.2.13Ih		–	
>HARQ Info for E-DCH	O		9.2.2.18ba		–	
>HS-DSCH Configured Indicator	O		9.2.2.18Ca		–	
E-DCH FDD Information	O		E-DCH FDD Information 9.2.2.13Da		YES	reject
E-DCH FDD Information To Modify	O		9.2.2.13Df		YES	reject
E-DCH MAC-d Flows To Add	O		E-DCH FDD MAC-d Flows Information 9.2.2.13M		YES	reject
E-DCH MAC-d Flows To Delete	O		9.2.1.73		YES	reject
Serving E-DCH RL	O		9.2.2.48B		YES	reject
CPC Information		*0..1*			YES	reject
>Continuous Packet Connectivity DTX-DRX Information	O		9.2.2.66		–	
>Continuous Packet Connectivity DTX-DRX Information To Modify	O		9.2.2.67		–	
>Continuous Packet Connectivity HS-SCCH less Information	O		9.2.2.68		–	
>Continuous Packet Connectivity HS-SCCH less Deactivate Indicator	O		9.2.2.69A		YES	reject

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCHs for a UE
maxnoofRLs	Maximum number of RLs for a UE

Condition	Explanation
SF/2	The IE shall be present if the *Transmission Gap Pattern Sequence Information* IE is included and the indicated Downlink Compressed Mode method for at least one of the included Transmission Gap Pattern Sequence is set to "SF/2".
HSDSCH Radio Link	The IE shall be present if *HS-PDSCH RL ID* IE is present.
EDPCHInfo	This IE shall be present if *E-DPCH Information* IE is present.

9.1.47.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC' shall not be used.	YES	reject
UL CCTrCH To Modify		*0..<maxnoofCCTrCHs>*			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	O		9.2.1.58		–	
>Puncture Limit	O		9.2.1.50		–	
>UL SIR Target	O		UL SIR 9.2.1.67A	Applicable to 1.28Mcps TDD only	YES	reject
UL CCTrCH To Delete		*0..<maxnoofCCTrCHs>*			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
DL CCTrCH To Modify		*0..<maxnoofCCTrCHs>*			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	O		9.2.1.58		–	
>Puncture Limit	O		9.2.1.50		–	
>DL CCTrCH To Modify Per RL		*0..<maxnoofRLs>*		See note 1 below		
>>DL DPCH To Modify LCR		*0..1*		Applicable to 1.28Mcps TDD only	YES	ignore
>>>DL Timeslot Information LCR		*0..<maxnoofDLtsLCR>*			–	
>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>Maximum DL Power	O		DL Power 9.2.1.21	Maximum allowed power on DPCH	–	
>>>>Minimum DL Power	O		DL Power 9.2.1.21	Minimum allowed power on DPCH	–	
>>CCTrCH Maximum DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>>CCTrCH Minimum DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>>RL ID	O		9.2.1.53		YES	ignore
DL CCTrCH To Delete		*0..<maxnoofCCTrCHs>*			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
DCHs To Modify	O		DCHs TDD To Modify 9.2.3.4D		YES	reject
DCHs To Add	O		DCH TDD Information 9.2.3.4C		YES	reject
DCHs To Delete		*0..<maxnoofDCHs>*			GLOBAL	reject

>DCH ID	M		9.2.1.20		–	
RL Information		*0..<maxnoofRLs>*		See note 1 below	YES	reject
>RL ID	M		9.2.1.53		–	
>Maximum Downlink Power	O		DL Power 9.2.1.21		–	
>Minimum Downlink Power	O		DL Power 9.2.1.21		–	
>RL Specific DCH Information	O		9.2.1.53G		YES	ignore
>UL Synchronisation Parameters LCR		*0..1*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	ignore
>>Uplink Synchronisation Step Size	M		9.2.3.26H		–	
>>Uplink Synchronisation Frequency	M		9.2.3.26G		–	
Signalling Bearer Request Indicator	O		9.2.1.55A		YES	reject
HS-DSCH Information	O		HS-DSCH TDD Information 9.2.3.5F		YES	reject
HS-DSCH Information To Modify Unsynchronised	O		9.2.1.31HA		YES	reject
HS-DSCH MAC-d Flows To Add	O		HS-DSCH MAC-d Flows Information 9.2.1.31IA		YES	reject
HS-DSCH MAC-d Flows To Delete	O		9.2.1.31IB		YES	reject
HS-DSCH-RNTI	C-HSDSCH RadioLink		9.2.1.31J		YES	reject
HS-PDSCH RL ID	O		RL ID 9.2.1.53		YES	reject
E-DCH Information		*0..1*		3.84Mcps TDD only	YES	reject
>E-PUCH Information	O		9.2.3.45		–	
>E-TFCS Information TDD	O		9.2.3.46		–	
>E-DCH MAC-d Flows to Add	O		9.2.3.47		–	
>E-DCH MAC-d Flows to Delete	O		9.2.1.73		–	
>E-DCH Non-scheduled Grant Information TDD	O		9.2.3.48		–	
>E-DCH TDD Information	O		9.2.3.49		–	
>E-DCH TDD Information to Modify	O		9.2.3.52		–	
E-DCH Serving RL	O		9.2.1.53		YES	reject
E-DCH Information 7.68Mcps		*0..1*		7.68Mcps TDD only	YES	reject
>E-PUCH Information	O		9.2.3.45		–	
>E-TFCS Information TDD	O		9.2.3.46		–	
>E-DCH MAC-d Flows to Add	O		9.2.3.47		–	
>E-DCH MAC-d Flows to Delete	O		9.2.1.73		–	
>E-DCH Non-scheduled Grant Information 7.68Mcps TDD	O		9.2.3.64		–	

>E-DCH TDD Information 7.68Mcps	O		9.2.3.65		–	
>E-DCH TDD Information to Modify	O		9.2.3.52		–	
E-DCH Information 1.28Mcps		*0..1*		1.28Mcps TDD only	YES	reject
>E-PUCH Information LCR	O		9.2.3.45a		–	
>E-TFCS Information TDD	O		9.2.3.46		–	
>E-DCH MAC-d Flows to Add	O		9.2.3.47		–	
>E-DCH MAC-d Flows to Delete	O		9.2.1.73		–	
>E-DCH Non-scheduled Grant Information LCR TDD	O		9.2.3.48a		–	
>E-DCH TDD Information LCR	O		9.2.3.49a		–	
>E-DCH TDD Information to Modify	O		9.2.3.52		–	

Note 1: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxnoofRLs are represented by separate ASN.1 structures with different criticality.

Range Bound	Explanation
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE
maxnoofDLtsLCR	Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD
maxnoofDCHs	Maximum number of DCHs for a UE
maxnoofRLs	Maximum number of RLs for one UE

Condition	Explanation
HSDSCHRadioLink	The IE shall be present if *HS-PDSCH RL ID* IE is present.

9.1.48 RADIO LINK RECONFIGURATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
RL Information Response		*0..<maxnoofRLs>*			EACH	ignore
>RL ID	M		9.2.1.53		–	
>DCH Information Response	O		9.2.1.20C		YES	ignore
>DL Power Balancing Updated Indicator	O		9.2.2.12D	FDD only	YES	ignore
>E-DCH RL Set ID	O		RL Set ID 9.2.2.39		YES	ignore
>E-DCH FDD DL Control Channel Information	O		9.2.2.13Dc		YES	ignore
>E-DCH FDD Information Response	O		9.2.2.13Db		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
Target Communication Control Port ID	O		Communication Control Port ID 9.2.1.15		YES	ignore
HS-DSCH FDD Information Response	O		9.2.2.18E	FDD only	YES	ignore
HS-DSCH TDD Information Response	O		9.2.3.5G	TDD only	YES	ignore
E-DCH TDD Information Response	O		E-DCH TDD Information Response 9.2.3.50	TDD only	YES	ignore
MAC-hs Reset Indicator	O		9.2.1.38Ac		YES	ignore
Continuous Packet Connectivity HS-SCCH less Information Response	O		9.2.2.69	FDD only	YES	ignore

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for a UE

9.1.49 RADIO LINK DELETION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC' shall not be used.	YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	reject
RL Information		*1..<maxnoofRLs>*			EACH	notify
>RL ID	M		9.2.1.53		–	

Range Bound	Explanation
maxnoofRLs	Maximum number of radio links for one UE

9.1.50 RADIO LINK DELETION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.51 DL POWER CONTROL REQUEST [FDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC' shall not be used.	YES	ignore
Power Adjustment Type	M		9.2.2.27		YES	ignore
DL Reference Power	C-Common		DL power 9.2.1.21	Power on DPCH or on F-DPCH	YES	ignore
Inner Loop DL PC Status	O		9.2.2.18B		YES	ignore
DL Reference Power Information	C-Individual	*1..<maxnoofRLs>*			EACH	ignore
>RL ID	M		9.2.1.53		–	
>DL Reference Power	M		DL power 9.2.1.21	Power on DPCH or on F-DPCH	–	
Max Adjustment Step	C-CommonOrIndividual		9.2.2.20		YES	ignore
Adjustment Period	C-CommonOrIndividual		9.2.2.B		YES	ignore
Adjustment Ratio	C-CommonOrIndividual		9.2.2.C		YES	ignore

Condition	Explanation
Common	The IE shall be present if the *Adjustment Type* IE is equal to "Common".
Individual	The IE shall be present if the *Adjustment Type* IE is equal to "Individual".
CommonOrIndividual	The IE shall be present if the *Adjustment Type* IE is equal to "Common" or "Individual".

Range Bound	Explanation
maxnoofRLs	Maximum number of Radio Links for a UE

9.1.52 DEDICATED MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC' shall not be used when the Report characteristics type is set to "On Demand".	YES	reject
Measurement ID	M		9.2.1.42		YES	reject
CHOICE *Dedicated Measurement Object Type*	M				YES	reject
>RL						
>>RL Information		*1..<maxnoofRLs>*			EACH	reject
>>>RL ID	M		9.2.1.53		–	
>>>DPCH ID	O		9.2.3.5	TDD only	–	
>>>PUSCH Information		*0..<maxnoofPUSCHs>*		TDD only	GLOBAL	reject
>>>>PUSCH ID	M		9.2.3.12		–	
>>>HS-SICH Information		*0..<maxnoofHSSICHs>*		TDD only	GLOBAL	reject
>>>>HS-SICH ID	M		9.2.3.5Gb	For 1.28Mcps TDD, if the *Extended HS-SICH ID* IE is included in the *HS-SICH Information* IE, the *HS-SICH ID* IE shall be ignored	–	
>>>>Extended HS-SICH ID	O		9.2.3.5K	Applicable to 1.28Mcps TDD only, the *Extended HS-SICH ID* IE shall be used if the HS-SICH identity has a value larger than 31. See note 1 below.	–	
>>>DPCH ID 7.68Mcps	O		9.2.3.42	Included for 7.68Mcps TDD for downlink DPCH	YES	reject
>RLS				FDD only		
>>RL Set Information		*1..<maxno*			–	

		ofRLSets>				
>>>RL Set ID	M		9.2.2.39		–	
>ALL RL			NULL			
>ALL RLS			NULL	FDD only		
Dedicated Measurement Type	M		9.2.1.23		YES	reject
Measurement Filter Coefficient	O		9.2.1.41		YES	reject
Report Characteristics	M		9.2.1.51		YES	reject
CFN Reporting Indicator	M		FN Reporting Indicator 9.2.1.29B		YES	reject
CFN	O		9.2.1.7		YES	reject
Number Of Reported Cell Portions	C-BestCellPortionsMeas		9.2.2.23D	FDD only	YES	reject
Measurement Recovery Behavior	O		9.2.1.43A		YES	ignore
Alternative Format Reporting Indicator	O		9.2.1.1B		YES	ignore

Note 1: This information element is a simplified representation of the ASN.1.

Condition	Explanation
BestCellPortionsMeas	The IE shall be present if the *Dedicated Measurement Type* IE is set to "Best Cell Portions".

Range Bound	Explanation
maxnoofRLs	Maximum number of individual RLs a measurement can be started on
maxnoofPUSCHs	Maximum number of PUSCHs per RL a measurement can be started on
maxnoofRLSets	Maximum number of individual RL Sets a measurement can be started on
maxnoofHSSICHs	Maximum number of HSSICHs per RL a measurement can be started on

9.1.53 DEDICATED MEASUREMENT INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Measurement ID	M		9.2.1.42		YES	ignore
CHOICE *Dedicated Measurement Object Type*	O			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>RL or ALL RL				See Note 1		
>>RL Information		*1..<maxnoofRLs>*			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>DPCH ID	O		9.2.3.5	TDD only	–	
>>>Dedicated Measurement Value	M		9.2.1.24		–	
>>>CFN	O		9.2.1.7	Dedicated Measurement Time Reference	–	
>>>PUSCH Information		*0..<maxnoofPUSCHs>*		TDD only See note 3	GLOBAL	reject
>>>>PUSCH ID	M		9.2.3.12		–	
>>>>Dedicated Measurement Value	O		9.2.1.24		–	
>>>HS-SICH ID	O		9.2.3.5Gb	TDD only For 1.28Mcps TDD, if the *Extended HS-SICH ID* IE is included in the *HS-SICH Information* IE, the *HS-SICH ID* IE shall be ignored	YES	reject
>>>Multiple Dedicated Measurement Value Information		*0..<maxnoofDPCHsPerRL-1>*		Applicable to 3.84Mcps TDD only	GLOBAL	ignore
>>>>DPCH ID	M		9.2.3.5		–	
>>>>Dedicated Measurement Value	M		9.2.1.24		–	
>>>Multiple Dedicated Measurement Value Information LCR		*0..<maxnoofDPCHsLCRPerRL-1>*		Applicable to 1.28McpsTDD only	GLOBAL	ignore
>>>>DPCH ID	M		9.2.3.5		–	
>>>>Dedicated Measurement Value	M		9.2.1.24		–	
>>>Multiple HS-SICH		*0..<maxno*		TDD only	GLOBAL	ignore

Measurement Value Information		*ofHSSICHs -1>*				
>>>>HS-SICH ID	M		9.2.3.5Gb	For 1.28Mcps TDD, if the *Extended HS-SICH ID* IE is included in the *HS-SICH Information* IE, the *HS-SICH ID* IE shall be ignored	–	
>>>>Dedicated Measurement Value	M		9.2.1.24		–	
>>>>Extended HS-SICH ID	O		9.2.3.5K	Applicable to 1.28Mcps TDD only, the *Extended HS-SICH ID* IE shall be used if the HS-SICH identity has a value larger than 31.	YES	ignore
>>>DPCH ID 7.68Mcps	O		9.2.3.42	Included for 7.68Mcps TDD for downlink DPCH	YES	reject
>>>Multiple Dedicated Measurement Value Information 768Mcps		*0..<maxnoofDPCHs768PerRL-1>*		Applicable to 7.68McpsTDD only	GLOBAL	ignore
>>>>DPCH ID 7.68Mcps	M		9.2.3.42		–	
>>>>Dedicated Measurement Value	M		9.2.1.24		–	
>>>Extended HS-SICH ID	O		9.2.3.5K	Applicable to 1.28Mcps TDD only, the *Extended HS-SICH ID* IE shall be used if the HS-SICH identity has a value larger than 31.	YES	reject
>RLS or ALL RLS				FDD only See Note 2		
>>RL Set Information		*1..<maxnoofRLSets>*			EACH	ignore
>>>RL Set ID	M		9.2.2.39		–	
>>>Dedicated Measurement Value	M		9.2.1.24		–	
>>>CFN	O		9.2.1.7	Dedicated Measurement Time Reference	–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore
Measurement Recovery	O		9.2.1.43C		YES	ignore

Support Indicator						

Range Bound	Explanation
maxnoofRLs	Maximum number of individual RLs the measurement can be started on
maxnoofPUSCHs	Maximum number of PUSCHs per RL a measurement can be started on
maxnoofRLSets	Maximum number of individual RL Sets a measurement can be started on
maxnoofDPCHsPerRL	Maximum number of DPCHs per RL a measurement can be started on for 3.84Mcps TDD
maxnoofDPCHsLCRPerRL	Maximum number of DPCHs per RL a measurement can be started on for 1.28Mcps TDD
maxnoofHSSICHs	Maximum number of HSSICHs per RL a measurement can be started on
maxnoofDPCHs768PerRL	Maximum number of DPCHs per RL a measurement can be started on for 7.68Mcps TDD

Note 1: This is a simplified representation of the ASN.1: there are two different choice tags "RL" and "ALL RL" in the ASN.1, each having exactly the same structure.

Note 2: This is a simplified representation of the ASN.1: there are two different choice tags "RLS" and "ALL RLS" in the ASN.1, each having exactly the same structure.

Note 3: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxnoofPUSCHs are represented by separate ASN.1 structures with different criticality.

9.1.54 DEDICATED MEASUREMENT INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Measurement ID	M		9.2.1.42		YES	ignore
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.55 DEDICATED MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
Measurement ID	M		9.2.1.42		YES	ignore
CHOICE *Dedicated Measurement Object Type*	M			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>RL or ALL RL				See Note 1		
>>RL Information		*1..<maxnoofRLs>*			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>DPCH ID	O		9.2.3.5	TDD only	–	
>>>Dedicated Measurement Value Information	M		9.2.1.24A		–	
>>>PUSCH Information		*0..<maxnoofPUSCHs>*		TDD only See note 3	GLOBAL	reject
>>>>PUSCH ID	M		9.2.3.12		–	
>>>>Dedicated Measurement Value	O		9.2.1.24		–	
>>>HS-SICH ID	O		9.2.3.5Gb	TDD only For 1.28Mcps TDD, if the *Extended HS-SICH ID* IE is included in the *HS-SICH Information* IE, the *HS-SICH ID* IE shall be ignored	YES	reject
>>>DPCH ID 7.68Mcps	O		9.2.3.42	Included for 7.68Mcps TDD for downlink DPCH	YES	reject
>>>Extended HS-SICH ID	O		9.2.3.5K	Applicable to 1.28Mcps TDD only, the *Extended HS-SICH ID* IE shall be used if the HS-SICH identity has a value larger than 31.	YES	ignore
>RLS or ALL RLS				FDD only		

				See Note 2		
>>RL Set Information		*1..<maxnoofRLSets>*			EACH	ignore
>>>RL Set ID	M		9.2.2.39		–	
>>>Dedicated Measurement Value Information	M		9.2.1.24A		–	
Measurement Recovery Reporting Indicator	O		9.2.1.43B		YES	ignore

Range Bound	Explanation
maxnoofRLs	Maximum number of individual RLs the measurement can be started on
maxnoofPUSCHs	Maximum number of PUSCHs per RL a measurement can be started on
maxnoofRLSets	Maximum number of individual RL Sets a measurement can be started on

Note 1: This is a simplified representation of the ASN.1: there are two different choice tags "RL" and "ALL RL" in the ASN.1, each having exactly the same structure.

Note 2: This is a simplified representation of the ASN.1: there are two different choice tags "RLS" and "ALL RLS" in the ASN.1, each having exactly the same structure.

Note 3: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxnoofPUSCHs are represented by separate ASN.1 structures with different criticality.

9.1.56 DEDICATED MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall be used if this value was used when initiating the measurement. Otherwise, the reserved value "All NBCC" shall not be used.	YES	ignore
Measurement ID	M		9.2.1.42		YES	ignore

9.1.57 DEDICATED MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall be used if the Node B Communication Context ID was set to "All NBCC" when initiating the measurement. Otherwise, the reserved value "All CRNCCC" shall not be used.	YES	ignore
Measurement ID	M		9.2.1.42		YES	ignore
Cause	M		9.2.1.6		YES	ignore

9.1.58 RADIO LINK FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
CHOICE *Reporting Object*	M			Object for which the Failure shall be reported.	YES	ignore
>RL						
>>RL Information		*1..<maxnoofRLs>*			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>Cause	M		9.2.1.6		–	
>RL Set				FDD only		
>>RL Set Information		*1..<maxnoofRLSets>*			EACH	ignore
>>>RL Set ID	M		9.2.2.39		–	
>>>Cause	M		9.2.1.6		–	
>CCTrCH				TDD only		
>>RL ID	M		9.2.1.53		–	
>>CCTrCH List		*1..<maxnoofCCTrCHs>*			EACH	ignore
>>>CCTrCH ID	M		9.2.3.3		–	
>>>Cause	M		9.2.1.6		–	

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE
maxnoofRLSets	Maximum number of RL Sets for one UE
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE

9.1.59 RADIO LINK RESTORE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
CHOICE *Reporting Object*	M			Object for which the Restoration shall be reported.	YES	ignore
>RL				TDD only		
>>Radio Link Information		*1..<maxnoofRLs>*			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>RL Set				FDD only		
>>RL Set Information		*1..<maxnoofRLSets>*			EACH	ignore
>>>RL Set ID	M		9.2.2.39		–	
>CCTrCH				TDD only		
>>RL ID	M		9.2.1.53		–	
>>CCTrCH List		*1..<maxnoofCCTrCHs>*			EACH	ignore
>>>CCTrCH ID	M		CCTrCH ID 9.2.3.3		–	

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE
maxnoofRLSets	Maximum number of RL Sets for one UE
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE

9.1.60 COMPRESSED MODE COMMAND [FDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC' shall not be used.	YES	ignore
Active Pattern Sequence Information	M		9.2.2.A		YES	ignore

9.1.61 ERROR INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	O		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
Node B Communication Context ID	O		9.2.1.48	The reserved value "All NBCC' shall not be used.	YES	ignore
Cause	O		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.62 PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST

9.1.62.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
SFN	O		9.2.1.53A		YES	reject
HS-PDSCH, HS-SCCH,E-AGCH, E-RGCH and E-HICH Total Power	O		Maximum Transmission Power 9.2.1.40	Maximum transmission power to be allowed for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH codes	YES	reject
HS-PDSCH And HS-SCCH Scrambling Code	O		DL Scrambling Code 9.2.2.13	Scrambling code on which HS-PDSCH and HS-SCCH is transmitted. 0= Primary scrambling code of the cell 1…15 = Secondary scrambling code	YES	reject
HS-PDSCH FDD Code Information	O		9.2.2.18F		YES	reject
HS-SCCH FDD Code Information	O		9.2.2.18G		YES	reject

E-AGCH And E-RGCH/E-HICH FDD Scrambling Code	O		DL Scrambling Code 9.2.2.13	Scrambling code on which E-AGCH, E-RGCH and E-HICH are transmitted. 0= Primary scrambling code of the cell 1…15 = Secondary scrambling code	YES	reject
E-AGCH Code FDD Information	O		9.2.2.13Ib		YES	reject
E-RGCH/E-HICH Code FDD Information	O		9.2.2.13Ia		YES	reject
HSDPA And E-DCH Cell Portion Information		*0..<maxNoofCellPortions>*			GLOBAL	reject
>Cell Portion ID	M		9.2.2.1Ca		–	
>HS-PDSCH And HS-SCCH Scrambling Code	O		DL Scrambling Code 9.2.2.13	Scrambling code on which HS-PDSCH and HS-SCCH is transmitted over cell portion.	–	
>HS-PDSCH FDD Code Information	O		9.2.2.18F		–	
>HS-SCCH FDD Code Information	O		9.2.2.18G		–	
>HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH Total Power	O		Maximum Transmission Power 9.2.1.40	Maximum transmission power to be allowed for HS-PDSCH, HS-SCCH and E-AGCH, E-RGCH and E-HICH codes over cell portion	–	
>E-AGCH And E-RGCH/E-HICH FDD Scrambling Code	O		DL Scrambling Code 9.2.2.13	Scrambling code on which E-AGCH, E-RGCH and E-HICH are transmitted over cell portion.	–	
>E-AGCH Code FDD Information	O		9.2.2.13Ib		–	
>E-RGCH/E-HICH Code FDD Information	O		9.2.2.13Ia		–	
Maximum Target Received Total Wide Band Power	O		9.2.2.21a		YES	reject
Reference Received Total Wide Band Power	O		9.2.2.39B		YES	ignore
Target Non-serving E-DCH to Total E-DCH Power ratio	O		9.2.2.21b		YES	reject
HS-DSCH Common System Information	O		9.2.2.75		YES	reject

Common MAC Flows to Delete	O		9.2.2.97		YES	reject
HS-DSCH Paging System Information	O		9.2.2.76		YES	reject
Paging MAC Flows to Delete	O		9.2.2.98		YES	reject

Range Bound	Explanation
MaxNoofCellPortions	Maximum number of Cell Portions in a cell

9.1.62.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
SFN	O		9.2.1.53A		YES	reject
PDSCH Sets To Add		*0..<maxnoofPDSCH Sets>*			GLOBAL	reject
>PDSCH Set ID	M		9.2.3.11		–	
>PDSCH To Add Information		*0..1*		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD.	YES	reject
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>DL Timeslot Information		*1..<maxnoofDLts>*			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>DL Code Information		*1..<maxnoofPDSCHs>*			–	
>>>>PDSCH ID	M		9.2.3.10		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
>PDSCH To Add Information LCR		*0..1*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>DL Timeslot Information LCR		*1..<maxnoofDLtsLCR>*			–	
>>>Time Slot LCR	M		9.2.3.24A		–	

>>>Midamble Shift LCR	M		9.2.3.7A		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>DL Code Information LCR		*1..<maxnoofPDSCHs>*			–	
>>>>PDSCH ID	M		9.2.3.10		–	
>>>>TDD Channelisation Code LCR	M		9.2.3.19a		–	
>>>>TDD DL DPCH Time Slot Format LCR	O		9.2.3.19D		YES	reject
>>TSTD Indicator	O		9.2.1.64		YES	reject
>PDSCH To Add Information 7.68Mcps		*0..1*		Mandatory for 7.68Mcps TDD. Not Applicable to 1.28Mcps TDD or 3.84Mcps TDD.	YES	reject
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>DL Timeslot Information 7.68Mcps		*1..<maxnoofDLts>*			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>DL Code Information 7.68Mcps		*1..<maxnoofPDSCHs>*			–	
>>>>PDSCH ID 7.68Mcps	M		9.2.3.43		–	
>>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
PDSCH Sets To Modify		*0..<maxnoof PDSCHSets>*			GLOBAL	reject
>PDSCH Set ID	M		9.2.3.11		–	
>CHOICE *HCR or LCR or 7.68 Mcps*	M			See note 1 below	–	
>>3.84Mcps TDD					–	
>>>PDSCH To Modify Information		*1*			YES	reject
>>>>Repetition Period	O		9.2.3.16		–	
>>>>Repetition Length	O		9.2.3.15		–	
>>>>TDD Physical Channel Offset	O		9.2.3.20		–	
>>>>DL Timeslot Information		*0..<maxnoofDLts>*			–	
>>>>>Time Slot	M		9.2.3.23		–	

>>>>>Midamble Shift And Burst Type	O		9.2.3.7		–	
>>>>>TFCI Presence	O		9.2.1.57		–	
>>>>>DL Code Information		*0..<maxnoofPDSCHs>*			–	
>>>>>>PDSCH ID	M		9.2.3.10		–	
>>>>>>TDD Channelisation Code	M		9.2.3.19		–	
>>1.28Mcps TDD					–	
>>>PDSCH To Modify Information LCR		*1*			YES	reject
>>>>Repetition Period	O		9.2.3.16		–	
>>>>Repetition Length	O		9.2.3.15		–	
>>>>TDD Physical Channel Offset	O		9.2.3.20		–	
>>>>DL Timeslot Information LCR		*0..<maxnoofDLtsLCR>*			-	
>>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>>Midamble Shift LCR	O		9.2.3.7A		–	
>>>>>TFCI Presence	O		9.2.1.57		–	
>>>>>DL Code Information LCR		*0..<maxnoofPDSCHs>*			-	
>>>>>>PDSCH ID	M		9.2.3.10		–	
>>>>>>TDD Channelisation Code LCR	M		9.2.3.19a		–	
>>>>>>TDD DL DPCH Time Slot Format LCR	O		9.2.3.19D		YES	reject
>>7.68Mcps TDD					–	
>>>PDSCH To Modify Information 7.68Mcps		*1*			YES	reject
>>>>Repetition Period	O		9.2.3.16		–	
>>>>Repetition Length	O		9.2.3.15		–	
>>>>TDD Physical Channel Offset	O		9.2.3.20		–	
>>>>DL Timeslot Information 7.68Mcps		*0..<maxnoofDLts>*			–	
>>>>>Time Slot	M		9.2.3.23		–	
>>>>>Midamble Shift And Burst Type 7.68Mcps	O		9.2.3.35		–	

>>>>>TFCI Presence	O		9.2.1.57		–	
>>>>>DL Code Information 7.68Mcps		*0..<maxnoofPDSCHs>*			–	
>>>>>>PDSCH ID 7.68Mcps	M		9.2.3.43		–	
>>>>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
PDSCH Sets To Delete		*0..<maxnoof PDSCHSets>*			GLOBAL	reject
>PDSCH Set ID	M		9.2.3.11		–	
PUSCH Sets To Add		*0..<maxnoof PUSCHSets>*			GLOBAL	reject
>PUSCH Set ID	M		9.2.3.13		–	
>PUSCH To Add Information		*0..1*		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD.	YES	reject
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>UL Timeslot Information		*1..<maxnoofULts>*			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>UL Code Information		*1..<maxnoofPUSCHs>*			–	
>>>>PUSCH ID	M		9.2.3.12		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
>PUSCH To Add Information LCR		*0..1*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>UL Timeslot Information LCR		*1..<maxnoofULtsLCR>*			–	
>>>Time Slot LCR	M		9.2.3.24A		–	
>>>Midamble Shift LCR	M		9.2.3.7A		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>UL Code Information LCR		*1..<maxnoofPUSCHs>*			–	

>>>>PUSCH ID	M		9.2.3.12		–	
>>>>TDD Channelisation Code LCR	M		9.2.3.19a		–	
>>>>TDD UL DPCH Time Slot Format LCR	O		9.2.3.21C		YES	reject
>PUSCH To Add Information 7.68Mcps		*0..1*		Mandatory for 7.68Mcps TDD. Not Applicable to 1.28Mcps TDD or 3.84 Mcps TDD.	YES	reject
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>UL Timeslot Information 7.68Mcps		*1..<maxnoofULts>*			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>UL Code Information 7.68Mcps		*1..<maxnoofPUSCHs>*			–	
>>>>PUSCH ID	M		9.2.3.12		–	
>>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
PUSCH Sets To Modify		*0..<maxnoof PUSCHSets>*			GLOBAL	reject
>PUSCH Set ID	M		9.2.3.13		–	
>CHOICE *HCR or LCR or 7.68Mcps*	M			See note 1 below	–	
>>3.84Mcps TDD					–	
>>>PUSCH To Modify Information		*1*			YES	reject
>>>>Repetition Period	O		9.2.3.16		–	
>>>>Repetition Length	O		9.2.3.15		–	
>>>>TDD Physical Channel Offset	O		9.2.3.20		–	
>>>>UL Timeslot Information		*0..<maxnoofULts>*			–	
>>>>>Time Slot	M		9.2.3.23		–	
>>>>>Midamble Shift And Burst Type	O		9.2.3.7		–	
>>>>>TFCI Presence	O		9.2.1.57		–	
>>>>>UL Code Information		*0..<maxnoofPUSCHs>*			–	
>>>>>>PUSCH ID	M		9.2.3.12		–	

>>>>>>TDD Channelisation Code	M		9.2.3.19		–	
>>1.28Mcps TDD					–	
>>>PUSCH To Modify Information LCR		*1*			YES	reject
>>>>Repetition Period	O		9.2.3.16		–	
>>>>Repetition Length	O		9.2.3.15		–	
>>>>TDD Physical Channel Offset	O		9.2.3.20		–	
>>>>UL Timeslot Information LCR		*0..<maxnoofULtsLCR>*			–	
>>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>>Midamble Shift LCR	O		9.2.3.7A		–	
>>>>>TFCI Presence	O		9.2.1.57		–	
>>>>>UL Code Information LCR		*0..<maxnoofPUSCHs>*			–	
>>>>>>PUSCH ID	M		9.2.3.12		–	
>>>>>>TDD Channelisation Code LCR	M		9.2.3.19a		–	
>>>>>>TDD UL DPCH Time Slot Format LCR	O		9.2.3.21C		YES	reject
>>7.68Mcps TDD					–	
>>>PUSCH To Modify Information 7.68Mcps		*1*			YES	reject
>>>>Repetition Period	O		9.2.3.16		–	
>>>>Repetition Length	O		9.2.3.15		–	
>>>>TDD Physical Channel Offset	O		9.2.3.20		–	
>>>>UL Timeslot Information 7.68Mcps		*0..<maxnoofULts>*			–	
>>>>>Time Slot	M		9.2.3.23		–	
>>>>>Midamble Shift And Burst Type 7.68Mcps	O		9.2.3.35		–	
>>>>>TFCI Presence	O		9.2.1.57		–	
>>>>>UL Code Information 7.68Mcps		*0..<maxnoofPUSCHs>*			–	
>>>>>>PUSCH ID	M		9.2.3.12		–	
>>>>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	

PUSCH Sets To Delete		*0..<maxnoofPUSCHSets>*			GLOBAL	reject
>PUSCH Set ID	M		9.2.3.13		–	
HS-PDSCH TDD Information		*0..1*			GLOBAL	reject
>DL Timeslot and Code Information		*0..<maxnoofDLts>*		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD.	–	
>>Time Slot	M		9.2.3.23		–	
>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>Codes		*1..<maxnoofHSPDSCHs>*			–	
>>>TDD Channelisation Code	M		9.2.3.19		–	
>>HS-PDSCH and HS-SCCH Total Power	O		Maximum Transmission Power 9.2.1.40	Maximum transmission power to be allowed for HS-PDSCH and HS-SCCH codes in the timeslot	YES	reject
>DL Timeslot and Code Information LCR per UARFCN		*0..<maxFrequencyinCell>*		Mandatory for 1.28Mcps TDD Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD. See note 2 below	EACH	reject
>>DL Timeslot and Code Information LCR		*0..<maxnoofDLtsLCR>*		.	–	
>>>Time Slot LCR	M		9.2.3.24A		–	
>>>Midamble Shift LCR	M		9.2.3.7A		–	
>>>Codes LCR		*1..<maxnoofHSPDSCHs>*			–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
>>>HS-PDSCH and HS-SCCH Total Power	O		Maximum Transmission Power 9.2.1.40	Maximum transmission power to be allowed for HS-PDSCH and HS-SCCH codes in the timeslot	YES	reject
>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Mandatory for 1.28Mcps TDD when using multiple frequencies.	–	

>DL Timeslot and Code Information 7.68Mcps		*0..<maxnoofDLts>*		Mandatory for 7.68Mcps TDD. Not Applicable to 1.28Mcps TDD or 3.84 Mcps TDD.	GLOBAL	reject
>>Time Slot	M		9.2.3.23		–	
>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>Codes 7.68Mcps		*1..<maxnoofHSPDSCHs768>*			–	
>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>>HS-PDSCH and HS-SCCH Total Power	O		Maximum Transmission Power 9.2.1.40	Maximum transmission power to be allowed for HS-PDSCH and HS-SCCH codes in the timeslot	–	–
Add to HS-SCCH Resource Pool		*0..1*			GLOBAL	reject
>HS-SCCH Information		*0..<maxnoofHSSCCHs>*		Applicable to 3.84Mcps TDD only	–	
>>HS-SCCH ID	M		9.2.3.5Ga		–	
>>Time Slot	M		9.2.3.23		–	
>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>TDD Channelisation Code	M		9.2.3.19		–	
>>Maximum HS-SCCH Power	M		DL Power 9.2.1.21		–	
>>HS-SICH Information		*1*			–	
>>>HS-SICH ID	M		9.2.3.5Gb		–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>>TDD Channelisation Code	M		9.2.3.19		–	
>HS-SCCH Information LCR		*0..<maxnoofHSSCCHs>*		Applicable to 1.28Mcps TDD only See note 3 below	–	
>>HS-SCCH ID	M		9.2.3.5Ga	If the *Extended HS-SCCH ID* IE is included in the *HS-SCCH Information LCR* IE, the *HS-SCCH ID* IE shall be ignored.	–	
>>Time Slot LCR	M		9.2.3.24A		–	
>>Midamble Shift LCR	M		9.2.3.7A		–	
>>First TDD Channelisation Code	M		TDD Channelisation Code 9.2.3.19		–	

>>Second TDD Channelisation Code	M		TDD Channelisation Code 9.2.3.19		–	
>>Maximum HS-SCCH Power	M		DL Power 9.2.1.21		–	
>>HS-SICH Information LCR		*1*			–	
>>>HS-SICH ID	M		9.2.3.5Gb	If the *Extended HS-SICH ID* IE is included in the *HS-SICH Information LCR* IE, the *HS-SICH ID* IE shall be ignored.	–	
>>>Time Slot LCR	M		9.2.3.24A		–	
>>>Midamble Shift LCR	M		9.2.3.7A		–	
>>>TDD Channelisation Code	M		9.2.3.19		–	
>>>Extended HS-SICH ID	O		9.2.3.5K	The *Extended HS-SICH ID* IE shall be used if the HS-SICH identity has a value larger than 31.	YES	ignore
>>Extended HS-SCCH ID	O		9.2.3.5J	The *Extended HS-SCCH ID* IE shall be used if the HS-SCCH identity has a value larger than 31.	YES	ignore
>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Mandatory for 1.28Mcps TDD when using multiple frequencies.	YES–	ignore
>HS-SCCH Information 7.68Mcps		*0..<maxnoofHSSCCHs>*		Applicable to 7.68Mcps TDD only	GLOBAL	reject
>>HS-SCCH ID	M		9.2.3.5Ga		–	
>>Time Slot	M		9.2.3.23		–	
>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>>Maximum HS-SCCH Power	M		DL Power 9.2.1.21		–	
>>HS-SICH Information 7.68Mcps		*1*			–	
>>>HS-SICH ID	M		9.2.3.5Gb		–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	

>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
Modify HS-SCCH Resource Pool		*0..1*			GLOBAL	reject
>HS-SCCH Information		*0..<maxnoofHSSCCHs>*		Applicable to 3.84Mcps TDD only	–	
>>HS-SCCH ID	M		9.2.3.5Ga		–	
>>Time Slot	O		9.2.3.23		–	
>>Midamble Shift And Burst Type	O		9.2.3.7		–	
>>TDD Channelisation Code	O		9.2.3.19		–	
>>Maximum HS-SCCH Power	O		DL Power 9.2.1.21		–	
>>HS-SICH Information		*0..1*			–	
>>>HS-SICH ID	M		9.2.3.5Gb		–	
>>>Time Slot	O		9.2.3.23		–	
>>>Midamble Shift And Burst Type	O		9.2.3.7		–	
>>>TDD Channelisation Code	O		9.2.3.19		–	
>HS-SCCH Information LCR		*0..<maxnoofHSSCCHs>*		Applicable to 1.28Mcps TDD only See note 3 below	–	
>>HS-SCCH ID	M		9.2.3.5Ga	If the *Extended HS-SCCH ID* IE is included in the *HS-SCCH Information LCR* IE, the *HS-SCCH ID* IE shall be ignored.	–	
>>Time Slot LCR	O		9.2.3.24A		–	
>>Midamble Shift LCR	O		9.2.3.7A		–	
>>First TDD Channelisation Code	O		TDD Channelisation Code 9.2.3.19		–	
>>Second TDD Channelisation Code	O		TDD Channelisation Code 9.2.3.19		–	
>>Maximum HS-SCCH Power	O		DL Power 9.2.1.21		–	
>>HS-SICH Information LCR		*0..1*			–	
>>>HS-SICH ID	M		9.2.3.5Gb	If the *Extended HS-SICH ID* IE is included in the *HS-SICH Information LCR* IE, the *HS-SICH ID* IE shall be ignored.	–	
>>>Time Slot LCR	O		9.2.3.24A		–	
>>Midamble Shift LCR	O		9.2.3.7A		–	

>>>TDD Channelisation Code	O		9.2.3.19		–	
>>>Extended HS-SICH ID	O		9.2.3.5K	The *Extended HS-SICH ID* IE shall be used if the HS-SICH identity has a value larger than 31.	YES	ignore
>>Extended HS-SCCH ID	O		9.2.3.5J	The *Extended HS-SCCH ID* IE shall be used if the HS-SCCH identity has a value larger than 31.	YES	ignore
>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Applicable to 1.28Mcps TDD when using multiple frequencies.	YES	ignore
>HS-SCCH Information 7.68Mcps		*0..<maxnoofHSSCCHs>*		Applicable to 7.68Mcps TDD only	GLOBAL	reject
>>HS-SCCH ID	M		9.2.3.5Ga		–	
>>Time Slot	O		9.2.3.23		–	
>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>>Maximum HS-SCCH Power	O		DL Power 9.2.1.21		–	
>>HS-SICH Information 7.68Mcps		*0..1*			–	
>>>HS-SICH ID	M		9.2.3.5Gb		–	
>>>Time Slot	O		9.2.3.23		–	
>>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
Delete from HS-SCCH Resource Pool		*0..<maxno of HSSCCHs>*		For 1.28Mcps TDD ,see note 3 below	GLOBAL	reject
>HS-SCCH ID	M		9.2.3.5Ga	For 1.28Mcps TDD, if the *Extended HS-SCCH ID* IE is included in the *Delete from HS-SCCH Resource Pool* IE, the *HS-SCCH ID* IE shall be ignored	–	

>Extended HS-SCCH ID	O		9.2.3.5J	Applicable to 1.28Mcps TDD only, the *Extended HS-SCCH ID* IE shall be used if the HS-SCCH identity has a value larger than 31.	YES	ignore
Configuration Generation ID	O		9.2.1.16		YES	reject
E-PUCH Information		*0..1*		3.84Mcps TDD only	GLOBAL	reject
>LTGI Presence	M		9.2.3.58		–	
>SNPL Reporting Type	M		9.2.3.62		–	
>Midamble Shift And Burst Type	M		9.2.3.7		–	
>E-PUCH Timeslot Information		*1..<maxnoofEPUCHslots>*			–	
>>Time Slot	M		9.2.3.23			
Add to E-AGCH Resource Pool		*0..1*		3.84Mcps TDD only	GLOBAL	reject
>E-AGCH Information		*0..<maxnoofEAGCHs>*			–	
>>E-AGCH ID TDD	M		9.2.3.51		–	
>>Time Slot	M		9.2.3.23		–	
>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>TDD Channelisation Code	M		9.2.3.19		–	
>>Maximum E-AGCH Power	M		DL Power 9.2.1.21		–	
Modify E-AGCH Resource Pool		*0..1*		3.84Mcps TDD only	GLOBAL	reject
>E-AGCH Information		*0..<maxnoofEAGCHs>*			–	
>>E-AGCH ID TDD	M		9.2.3.51		–	
>>Time Slot	O		9.2.3.23		–	
>>Midamble Shift And Burst Type	O		9.2.3.7		–	
>>TDD Channelisation Code	O		9.2.3.19		–	
>>Maximum E-AGCH Power	O		DL Power 9.2.1.21		–	
Delete from E-AGCH Resource Pool		*0..<maxnoofEAGCHs>*			GLOBAL	reject
>E-AGCH ID TDD	M		9.2.3.51		–	
E-HICH Information		*0..1*		3.84Mcps TDD only	GLOBAL	reject
>Midamble Shift And Burst Type	M		9.2.3.7		–	
>TDD Channelisation Code	M		9.2.3.19		–	
>Maximum E-HICH Power	M		DL Power 9.2.1.21		–	
Maximum Generated Received Total Wide Band Power in Other Cells	O		9.2.3.63	Applicable to 3.84Mcps and 7.68 Mcps TDD only	YES	reject
E-PUCH Information 7.68Mcps		*0..1*		7.68Mcps TDD only	GLOBAL	reject

>LTGI Presence	M		9.2.3.58		–	
>SNPL Reporting Type	M		9.2.3.62		–	
>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>E-PUCH Timeslot Information		*1..<maxnoofEPUCHslots>*			–	
>>Time Slot	M		9.2.3.23		–	
Add to E-AGCH Resource Pool 7.68Mcps		*0..1*		7.68Mcps TDD only	GLOBAL	reject
>E-AGCH Information		*0..<maxnoofEAGCHs>*			–	
>>E-AGCH ID TDD	M		9.2.3.51		–	
>>Time Slot	M		9.2.3.23		–	
>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>>Maximum E-AGCH Power	M		DL Power 9.2.1.21		–	
Modify E-AGCH Resource Pool 7.68Mcps		*0..1*		7.68Mcps TDD only	GLOBAL	reject
>E-AGCH Information		*0..<maxnoofEAGCHs>*			–	
>>E-AGCH ID TDD	M		9.2.3.51		–	
>>Time Slot	O		9.2.3.23		–	
>>Midamble Shift And Burst Type 7.68Mcps	O		9.2.3.35		–	
>>TDD Channelisation Code 7.68Mcps	O		9.2.3.34		–	
>>Maximum E-AGCH Power	O		DL Power 9.2.1.21		–	
E-HICH Information 7.68Mcps		*0..1*		7.68Mcps TDD only	GLOBAL	reject

>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>Maximum E-HICH Power	M		DL Power 9.2.1.21		–	
E-PUCH Information 1.28Mcps		*0..1*		1.28Mcps TDD only	GLOBAL	reject
>LTGI Presence	M		9.2.3.58		–	
>SNPL Reporting Type	M		9.2.3.62		–	
>E-PUCH Timeslot information 1.28Mcps per UARFCN		*0..<maxFrequencyinCell>*		See note 2 below		
>>E-PUCH Timeslot Information 1.28Mcps		*0..<maxnoofEPUCHslotsLCR>*			–	
>>>Time Slot LCR	M		9.2.3.24A		–	
>>>Midamble Shift LCR	M		9.2.3.7A		–	
>>>Codes LCR		*1..<maxnoofEPUCHcodes>*			–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Mandatory for 1.28Mcps TDD when using multiple frequencies.	YES	ignore
Add to E-AGCH Resource Pool 1.28Mcps		*0..1*		1.28Mcps TDD only	GLOBAL	reject
>E-AGCH Information 1.28Mcps		*1..<maxnoofEAGCHs>*			–	
>>E-AGCH ID TDD	M		9.2.3.51		–	
>>Time Slot LCR	M		9.2.3.24A		–	
>>Midamble Shift LCR	M		9.2.3.7A		–	
>>First TDD Channelisation Code	M		TDD Channelisation Code 9.2.3.19		–	
>>Second TDD Channelisation Code	M		TDD Channelisation Code 9.2.3.19		–	
>>Maximum E-AGCH Power	M		DL Power 9.2.1.21		–	
>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Mandatory for 1.28Mcps TDD when using multiple frequencies.	YES	ignore
Modify E-AGCH Resource Pool 1.28Mcps		*0..1*		1.28Mcps TDD only	GLOBAL	reject
>E-AGCH Information 1.28Mcps		*1..<maxnoofEAGCHs>*			–	
>>E-AGCH ID TDD	M		9.2.3.51		–	
>>Time Slot LCR	O		9.2.3.24A		–	
>>Midamble Shift LCR	O		9.2.3.7A		–	

>>First TDD Channelisation Code	O		TDD Channelisation Code 9.2.3.19		–	
>>Second TDD Channelisation Code	O		TDD Channelisation Code 9.2.3.19		–	
>>Maximum E-AGCH Power	O		DL Power 9.2.1.21		–	
>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Mandatory for 1.28Mcps TDD when using multiple frequencies.	YES	ignore
Add to E-HICH Resource Pool 1.28Mcps		*0..1*		1.28Mcps TDD only	GLOBAL	reject
>E-HICH Information 1.28Mcps		*1..<maxnoofEHICHs>*			–	
>>E-HICH ID TDD	M		9.2.3.51a	If the *Extended E-HICH ID TDD* IE is included in the *E-HICH Information 1.28Mcps* IE, the *E-HICH ID TDD* IE shall be ignored.	–	
>>E-HICH Type	M		9.2.3.68		–	
>>TDD Channelisation Code	M		9.2.3.19		–	
>>Time Slot LCR	M		9.2.3.24A		–	
>>Midamble Shift LCR	M		9.2.3.7A		–	
>>Maximum E-HICH Power	M		DL Power 9.2.1.21		–	
>>Extended E-HICH ID TDD	O		9.2.3.51b	Applicable to 1.28Mcps TDD only, the *Extended E-HICH ID TDD* IE shall be used if the E-HICH identity has a value larger than 31.	YES	ignore
>>UARFCN	O		9.2.1.65	Corresponds to Nt[15] Mandatory for 1.28Mcps TDD when using multiple frequencies.	YES	ignore
Modify E-HICH Resource Pool 1.28Mcps		*0..1*		1.28Mcps TDD only	GLOBAL	reject
>E-HICH Information 1.28Mcps		*1..<maxnoofEHICHs>*			–	

>>E-HICH ID TDD	M		9.2.3.51a	If the *Extended E-HICH ID TDD* IE is included in the *E-HICH Information 1.28Mcps* IE, the *E-HICH ID TDD* IE shall be ignored.	–	
>>E-HICH Type	O		9.2.3.68		–	
>>TDD Channelisation Code	O		9.2.3.19		–	
>>Time Slot LCR	O		9.2.3.24A		–	
>>Midamble Shift LCR	O		9.2.3.7A		–	
>>Maximum E-HICH Power	O		DL Power 9.2.1.21		–	
>>Extended E-HICH ID TDD	O		9.2.3.51b	Applicable to 1.28Mcps TDD only, the *Extended E-HICH ID TDD* IE shall be used if the E-HICH identity has a value larger than 31.	YES	ignore
>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Mandatory for 1.28Mcps TDD when using multiple frequencies.	YES	ignore
Delete from E-HICH Resource Pool 1.28Mcps		*0..<maxnoofEHICHs>*		1.28Mcps TDD only	GLOBAL	reject
>E-HICH ID TDD	M		9.2.3.51a	If the *Extended E-HICH ID TDD* IE is included in the *Delete from E-HICH Resource Pool 1.28Mcps* IE, the *E-HICH ID TDD* IE shall be ignored.	–	
>Extended E-HICH ID TDD	O		9.2.3.51b	Applicable to 1.28Mcps TDD only, the *Extended E-HICH ID TDD* IE shall be used if the E-HICH identity has a value larger than 31.	YES	ignore

SYNC_UL Partition Information		*0..1*		Applicable to 1.28Mcps TDD to indicate the SYNC_UL partition information for the Primary Frequency. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	GLOBAL	reject
>E-RUCCH SYNC_UL codes bitmap	M		BITSTRING (8)	Each bit indicates availability of a SYNC_UL code, where the SYNC_UL codes are numbered "code 0" to "code 7". The value 1 of a bit indicates that the corresponding SYNC_UL code can be used. The value 0 of a bit indicates that the corresponding SYNC_UL code can not be used.	–	
Maximum Target Received Total Wide Band Power LCR	O		9.2.3.69	1.28Mcps TDD only	YES	reject

Note 1: This information element is a simplified representation of the ASN.1. The choice is in reality performed through the use of ProtocolIE-Single-Container within the ASN.1.

Note 2: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxFrequencyinCell are represented by separate ASN.1 structures with different criticalities.

Note 3: This information element is a simplified representation of the ASN.1. Repetitions 1 to 32 and repetitions 33 to *maxnoofHSSCCHs* are represented by separate ASN.1 structures.

Range Bound	Explanation
maxnoofPDSCHSets	Maximum number of PDSCH Sets in a cell.
maxnoofPDSCHs	Maximum number of PDSCH in a cell.
maxnoofPUSCHSets	Maximum number of PUSCH Sets in a cell.
maxnoofPUSCHs	Maximum number of PUSCH in a cell.
maxnoofDLts	Maximum number of Downlink time slots in a cell for 3.84Mcps TDD.
maxnoofDLtsLCR	Maximum number of Downlink time slots in a cell for 1.28Mcps TDD.
maxnoofULts	Maximum number of Uplink time slots in a cell for 3.84Mcps TDD.
maxnoofULtsLCR	Maximum number of Uplink time slots in a cell for 1.28Mcps TDD
maxnoofHSSCCHs	Maximum number of HS-SCCHs in a Cell
maxnoofHSPDSCHs	Maximum number of HS-PDSCHs in one time slot of a Cell for 1.28Mcps TDD and 3.84Mcps TDD
maxnoofHSPDSCHs768	Maximum number of HS-PDSCHs in one time slot of a Cell for 7.68Mcps TDD
maxnoofEAGCHs	Maximum number of E-AGCHs in a Cell
maxnoofEPUCHslots	Maximum number of E-PUCH time slots in a Cell for 3.84Mcps TDD and 7.68Mcps TDD
maxnoofEHICHs	Maximum number of E-HICHs in a Cell
maxnoofEPUCHslotsLCR	Maximum number of E-PUCH time slots in a Carrier for 1.28Mcps TDD
maxnoofEPUCHcodes	Maximum number of E-PUCH codes in one time slot for 1.28Mcps TDD
maxFrequencyinCell	Maximum number of Frequencies that can be defined in a Cell

9.1.63 PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore
E-HICH Time Offset	O		9.2.3.59	Applicable to 3.84Mcps and 7.68 Mcps TDD only	YES	reject
E-HICH Time Offset LCR	O		9.2.3.59a	1.28Mcps TDD only	YES	reject
HS-DSCH Common System Information Response	O		9.2.2.77		YES	ignore
HS-DSCH Paging System Information Response	O		9.2.2.78		YES	ignore

9.1.64 PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CHOICE *Cause Level*	M				YES	ignore
>General						
>>Cause	M		9.2.1.6		–	
>Set Specific				TDD Only		
>>Unsuccessful DL Shared Channel Set		*0..<maxnoofPDSCHSets>*			EACH	ignore
>>>PDSCH Set ID	M		9.2.3.13		–	
>>>Cause	M		9.2.1.6		–	
>>Unsuccessful UL Shared Channel Set		*0..<maxnoofPUSCHSets>*			EACH	ignore
>>>PUSCH Set ID	M		9.2.3.13		–	
>>>Cause	M		9.2.1.6		–	
>Extension Cause Level						
>>UARFCN Specific		*1*		Applicable to 1.28Mcps TDD only when using multiple frequencies	YES	ignore
>>>Unsuccessful UARFCN		*0..<maxFrequencyinCell>*			EACH	ignore
>>>>UARFCN	M		9.2.1.65	Corresponds to Nt [15] Used to indicate the carrier on which HSDPA or E-DCH related resources configuration failure occurs.	–	
>>>>HS-Cause	O		9.2.1.6	Used to indicate the cause of HSDPA configuration. failure	–	
>>>>E-Cause	O		9.2.1.6	Used to indicate the cause of E-DCH related configuration failure.	YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

Range Bound	Explanation
maxnoofPDSCHSets	Maximum number of PDSCH Sets in a cell
maxnoofPUSCHSets	Maximum number of PUSCH Sets in a cell
maxFrequencyinCell	Maximum number of Frequencies that can be defined in a Cell

9.1.65 RESET REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CHOICE *Reset Indicator*	M				YES	ignore
>Communication Context						
>>Communication Context Information		*1..<maxCommunicationContext>*			EACH	reject
>>>CHOICE *Communication Context Type*	M				_	
>>>>CRNC Communication Context						
>>>>>CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	_	
>>>>Node B Communication Context						
>>>>>Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	_	
>Communication Control Port						
>>Communication Control Port Information		*1..<maxCCPinNode B>*			EACH	reject
>>>Communication Control Port ID	M		9.2.1.15		_	
>Node B			NULL			

Range Bound	Explanation
maxCommunicationContext	Maximum number of Communication Contexts that can exist in the Node B
maxCCPinNode B	Maximum number of Communication Control Ports that can exist in the Node B

9.1.66 RESET RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.67 DL POWER TIMESLOT CONTROL REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC' shall not be used.	YES	ignore
DL Time Slot ISCP Info	O		9.2.3.4F	Mandatory for 3.84Mcps TDD and 7.68Mcps TDD. Not Applicable to 1.28Mcps TDD.	YES	ignore
DL Time Slot ISCP Info LCR	O		9.2.3.4P	Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD and 7.68Mcps TDD.	YES	ignore
Primary CCPCH RSCP	O		9.2.3.11A		YES	ignore
Primary CCPCH RSCP Delta	O		9.2.3.11B		YES	ignore

9.1.68 RADIO LINK PREEMPTION REQUIRED INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
RL Information		*0..<maxnoofRLs>*			EACH	ignore
>RL ID	M		9.2.1.53		–	

Range Bound	Explanation
maxnoofRLs	Maximum number of radio links for one UE

9.1.69 INFORMATION EXCHANGE INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Information Exchange ID	M		9.2.1.36C		YES	reject
CHOICE *Information Exchange Object Type*	M				YES	reject
>Cell						
>>C-ID	M		9.2.1.9		–	
Information Type	M		9.2.1.36D		YES	reject
Information Report Characteristics	M		9.2.1.36B		YES	reject

9.1.70 INFORMATION EXCHANGE INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Information Exchange ID	M		9.2.1.36C		YES	ignore
CHOICE *Information Exchange Object Type*	O				YES	ignore
>Cell						
>>Requested Data Value	M		9.2.1.51A		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.71 INFORMATION EXCHANGE INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Information Exchange ID	M		9.2.1.36C		YES	ignore
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.72 INFORMATION REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Information Exchange ID	M		9.2.1.36C		YES	ignore
CHOICE *Information Exchange Object Type*	M				YES	ignore
>Cell						
>>Requested Data Value Information	M		9.2.1.51B		–	

9.1.73 INFORMATION EXCHANGE TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Information Exchange ID	M		9.2.1.36C		YES	ignore

9.1.74 INFORMATION EXCHANGE FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Information Exchange ID	M		9.2.1.36C		YES	ignore
Cause	M		9.2.1.6		YES	ignore

9.1.75 CELL SYNCHRONISATION INITIATION REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Cell Sync Burst Repetition Period	M		9.2.3.4J		YES	reject
Time Slot Information		*0..15*		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.	GLOBAL	reject
>Time Slot	M		9.2.3.23		–	
Cell Sync Burst Transmission Initiation Information		*0..1*		Applicable to 3.84Mcps TDD only	GLOBAL	reject
>CSB Transmission ID	M		9.2.3.4N		–	
>SFN	M		9.2.1.53A		–	
>Cell Sync Burst Code	M		9.2.3.4G		–	
>Cell Sync Burst Code Shift	M		9.2.3.4H		–	
>Initial DL Transmission Power	M		DL Power 9.2.1.21		–	
Cell Sync Burst Measurement Initiation Information		*0..1*		Applicable to 3.84Mcps TDD only	GLOBAL	reject
>CSB Measurement ID	M		9.2.3.4I		–	
>Cell Sync Burst Code	M		9.2.3.4G		–	
>Cell Sync Burst Code Shift	M		9.2.3.4H		–	
>Synchronisation Report Type	M		9.2.3.18E		–	
>SFN	O		9.2.1.53A		–	
>Synchronisation Report Characteristics	M		9.2.3.18D		–	
SYNC_DL Code Transmission Initiation Information LCR		*0..1*		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>CSB Transmission ID	M		9.2.3.4N		–	
>SFN	M		9.2.1.53A		–	
>UARFCN	M		9.2.1.65		–	
>SYNC_DL Code ID	M		9.2.3.18B		–	
>DwPCH Power	M		9.2.3.5B		–	
SYNC_DL Code Measurement Initiation Information LCR		*0..1*		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>CSB Measurement ID	M		9.2.3.4I		–	

>SFN	O		9.2.1.53A		–	
>UARFCN	M		9.2.1.65		–	
>SYNC_DL Code ID	M		9.2.3.18B		–	
>Synchronisation Report Type	M		9.2.3.18E		–	
>Synchronisation Report Characteristics	M		9.2.3.18D		–	

9.1.76 CELL SYNCHRONISATION INITIATION RESPONSE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.77 CELL SYNCHRONISATION INITIATION FAILURE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.78 CELL SYNCHRONISATION RECONFIGURATION REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Time Slot	M		9.2.3.23	Applicable to 3.84Mcps TDD only. For 1.28Mcps TDD, the CRNC should set this to 0 and the Node B shall ignore it	YES	reject
Number Of Cycles Per SFN Period	M		9.2.3.7B		YES	reject
Number Of Repetitions Per Cycle Period	M		9.2.3.7C		YES	reject
Cell Sync Burst Transmission Reconfiguration Information		*0..<maxnoofCellSyncBursts>*		Applicable to 3.84Mcps TDD only	GLOBAL	reject
>CSB Transmission ID	M		9.2.3.4N		–	
>Sync Frame Number To Transmit	M		Sync Frame Number 9.2.3.18C		–	
>Cell Sync Burst Code	O		9.2.3.4G		–	
>Cell Sync Burst Code Shift	O		9.2.3.4H		–	
>DL Transmission Power	O		DL Power 9.2.1.21		–	
Cell Sync Burst Measurement Reconfiguration Information		*0..1*		Applicable to 3.84Mcps TDD only	YES	reject
>Cell Sync Burst Measurement Information		*1..<maxnoofCellSyncBursts>*			GLOBAL	reject
>>Sync Frame Number To Receive	M		Sync Frame Number 9.2.3.18C		–	
>>Cell Sync Burst Information		*1..<maxnoofreceptionsperSyncFrame>*			–	
>>>CSB Measurement ID	M		9.2.3.4I		–	
>>>Cell Sync Burst Code	M		9.2.3.4G		–	
>>>Cell Sync Burst Code Shift	M		9.2.3.4H		–	
>Synchronisation Report Type	O		9.2.3.18E		YES	reject
>Synchronisation Report Characteristics	O		9.2.3.18D		YES	reject
Number Of Subcycles Per Cycle Period	O		9.2.3.7D	Applicable to 1.28Mcps TDD only	YES	reject

SYNC_DL Code Transmission Reconfiguration Information LCR		*0..<maxnoofSyncFramesLCR>*		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>CSB Transmission ID	M		9.2.3.4N		–	
>Sync Frame Number For Transmission	M		Sync Frame Number 9.2.3.18C		–	
>UARFCN	M		9.2.1.65		–	
>SYNC_DL Code ID	O		9.2.3.18B		–	
>DwPCH Power	O		9.2.3.5B		–	
SYNC_DL Code Measurement Reconfiguration Information LCR		*0..1*		Applicable to 1.28Mcps TDD only	YES	reject
>SYNC_DL Code Measurement Information LCR		*1..<maxnoofSyncDLCodesLCR>*			–	
>>Sync Frame Number To Receive	M		Sync Frame Number 9.2.3.18C		–	
>>Sync_DLCode Information LCR		*1..<maxnofreceptionsperSyncFrameLCR>*			–	
>>>CSB Measurement ID	M		9.2.3.4I		–	
>>>SYNC_DL Code ID	M		9.2.3.18B		–	
>>>UARFCN	M		9.2.1.65		–	
>>>Propagation Delay Compensation	O		Timing Adjustment Value LCR 9.2.3.22b		–	
>Synchronisation Report Type	O		9.2.3.18E		YES	reject
>Synchronisation Report Characteristics	O		9.2.3.18D		YES	reject

Range Bound	Explanation
maxnoofCellSyncBursts	Maximum number of cell synchronisation bursts per cycle for 3.84Mcps TDD
maxnoofreceptionsperSyncFrame	Maximum number of cell synchronisation burst receptions per Sync Frame for 3.84Mcps TDD
maxnoofSyncFramesLCR	Maximum number of Sync Frames per subcycle for 1.28Mcps TDD
maxnoofreceptionsperSyncFrameLCR	Maximum number of SYNC_DL Code ID receptions per Sync Frame for 1.28Mcps TDD
maxnoofSyncDLCodesLCR	Maximum number of SYNC_DL Codes for 1.28Mcps TDD

9.1.79 CELL SYNCHRONISATION RECONFIGURATION RESPONSE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.80 CELL SYNCHRONISATION RECONFIGURATION FAILURE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.81 CELL SYNCHRONISATION REPORT [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Cell Synchronisation Information		*1..<maxCellinNodeB>*			GLOBAL	ignore
>C-ID	M		9.2.1.9		YES	ignore
>CHOICE *Synchronisation Report Type*	O				YES	ignore
>>Initial Phase or Steady-State Phase						
>>>Cell Sync Burst Measured Information		*0..<maxnoofCellSyncBursts>*		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.	–	
>>>>SFN	M		9.2.1.53A		–	
>>>>Cell Sync Burst Information		*1..<maxnoofreceptionsperSyncFrame>*			–	
>>>>>CHOICE *Cell Sync Burst Availability Indicator*	M				–	
>>>>>>*Cell Sync Burst Available*						
>>>>>>>Cell Sync Burst Timing	M		9.2.3.4L		–	
>>>>>>>Cell Sync Burst SIR	M		9.2.3.4K		–	
>>>>>>*Cell Sync Burst Not Available*			NULL			
>>>Accumulated Clock Update	O		Timing Adjustment Value 9.2.3.22a		YES	ignore
>>>SYNC_DL Codes Measured Information		*0..<maxnoofSyncFramesLCR>*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	ignore
>>>>SFN	M		9.2.1.53A		–	
>>>>SYNC_DL Code Information		*1..<maxnoofreceptionsperSyncFrameLCR*			–	

		>				
>>>>>CHOICE *SYNC_DL Code Availability Indicator*	M				–	
>>>>>>SYNC_DL Code Available						
>>>>>>>SYNC_ DL Code ID Timing	M		Cell Sync Burst Timing LCR 9.2.3.4La		–	
>>>>>>>SYNC_ DL Code ID SIR	M		Cell Sync Burst SIR 9.2.3.4K		–	
>>>>>>SYNC_DL Code Not Available			NULL			
>>Late-Entrant Cell			NULL			
>>Frequency Acquisition			NULL			

Range Bound	Explanation
maxCellinNode B	Maximum number of Cells in a Node B
maxnoofCellSyncBursts	Maximum number of cell synchronisation bursts per cycle for 3.84Mcps TDD
maxnoofreceptionsperSyncFrame	Maximum number of cell synchronisation burst receptions per Sync Frame for 3.84Mcps TDD
maxnoofSyncFramesLCR	Maximum number of SYNC Frames per measurement reporting period for 1.28Mcps TDD
maxnoofreceptionsperSyncFrameLCR	Maximum number of SYNC_DL Code ID receptions per Sync Frame for 1.28Mcps TDD

9.1.82 CELL SYNCHRONISATION TERMINATION REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	ignore
CSB Transmission ID	O		9.2.3.4N		YES	ignore
CSB Measurement ID	O		9.2.3.4I		YES	ignore

9.1.83 CELL SYNCHRONISATION FAILURE INDICATION [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	ignore
CSB Transmission ID	O		9.2.3.4N		YES	ignore
CSB Measurement ID	O		9.2.3.4I		YES	ignore
Cause	M		9.2.1.6		YES	ignore

9.1.84 CELL SYNCHRONISATION ADJUSTMENT REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality

			Reference			
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cell Adjustment Information		*1..<maxCellinNode B>*			EACH	ignore
>C-ID	M		9.2.1.9		–	
>Frame Adjustment Value	O		9.2.3.5C		–	
>Timing Adjustment Value	O		9.2.3.22a	Applicable to 3.84Mcps TDD only	–	
>DL Transmission Power	O		9.2.1.21	Applicable to 3.84Mcps TDD only	–	
>SFN	O		9.2.1.53A		–	
>DwPCH Power	O		9.2.3.5B	Applicable to 1.28Mcps TDD only	YES	ignore
>Timing Adjustment Value LCR	O		9.2.3.22b	Applicable to 1.28Mcps TDD only	YES	ignore

Range Bound	Explanation
maxCellinNode B	Maximum number of Cells in a Node B

9.1.85 CELL SYNCHRONISATION ADJUSTMENT RESPONSE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.86 CELL SYNCHRONISATION ADJUSTMENT FAILURE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CHOICE *Cause Level*	M				YES	ignore
>*General*						
>>Cause	M		9.2.1.6		–	
>*Cell Specific*						
>>Unsuccessful Cell Information Response		*1..<maxCellinNode B>*			EACH	ignore
>>>C-ID	M		9.2.1.9		–	
>>>Cause	M		9.2.1.6		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

Range Bound	Explanation
maxCellinNode B	Maximum number of Cells in a Node B

9.1.87 BEARER REARRANGEMENT INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
Signalling Bearer Request Indicator	O		9.2.1.55A		YES	ignore
DCHs To Re-arrange		*0..<maxnoofDCHs>*			GLOBAL	ignore
>DCH ID	M		9.2.1.20		–	
DSCHs To Re-arrange		*0..<maxnoofDSCHs>*		TDD only	GLOBAL	ignore
>DSCH ID	M		9.2.3.5a		–	
USCHs To Re-arrange		*0..<maxnoofUSCHs>*		TDD only	GLOBAL	ignore
>USCH ID	M		9.2.3.27		–	
HS-DSCHs MAC-d Flow To Re-arrange		*0..<maxnoofMACdFlows>*			GLOBAL	ignore
>HS-DSCH MAC-d Flow ID	M		9.2.1.31I		–	
E-DCHs MAC-d Flow To Re-arrange		*0..<maxnoofEDCHMACdFlows>*			GLOBAL	ignore
>E-DCH MAC-d Flow ID	M		9.2.1.29ad		–	

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for a UE
maxnoofDSCHs	Maximum number of DSCHs for a UE
maxnoofUSCHs	Maximum number of USCHs for a UE
maxnoofMACdFlows	Maximum number of HS-DSCH MAC-d flows
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows

9.1.88 RADIO LINK ACTIVATION COMMAND

9.1.88.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48		YES	ignore
Delayed Activation Information		*1..<maxnoofRLs>*			EACH	ignore
>RL ID	M		9.2.1.53		–	
>Delayed Activation Update	M		9.2.1.24D		–	

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE

9.1.88.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48		YES	ignore
Delayed Activation Information		*1..<maxnoofRLs>*			EACH	ignore
>RL ID	M		9.2.1.53		–	
>Delayed Activation Update	M		9.2.1.24D		–	

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE

9.1.89 RADIO LINK PARAMETER UPDATE INDICATION

9.1.89.1 FDD Message

IE/Group name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
HS-DSCH FDD Update Information	O		9.2.2.18Ea		YES	ignore
E-DCH FDD Update Information	O		9.2.2.13DA		YES	ignore

9.1.89.2 TDD Message

IE/Group name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
HS-DSCH TDD Update Information	O		9.2.3.5GA		YES	ignore

9.1.90 MBMS NOTIFICATION UPDATE COMMAND

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	ignore
Common Physical Channel ID	M		9.2.1.13		YES	ignore
Modification Period	O		9.2.1.47a	This IE shall be present in the very first message	YES	ignore
MICH CFN	M		9.2.1.46a		YES	ignore
NI Information		*1..<maxNoofNIs>*			GLOBAL	ignore
>NI	M		9.2.1.47F		–	

Range Bound	Explanation
maxNoofNIs	Maximum number of NIs

9.2 Information Element Functional Definition and Contents

9.2.0 General

Subclause 9.2 presents the NBAP IE definitions in tabular format. The corresponding ASN.1 definition is presented in Subclause 9.3. In case there is a contradiction between the tabular format in Subclause 9.2 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, where the tabular format shall take precedence.

When specifying information elements which are to be represented by bitstrings, if not otherwise specifically stated in the semantics description of the concerned IE or elsewhere, the following principle applies with regards to the ordering of bits:

- The first bit (leftmost bit) contains the most significant bit (MSB);
- The last bit (rightmost bit) contains the least significant bit (LSB);
- When importing bitstrings from other specifications, the first bit of the bitstring contains the first bit of the concerned information;

9.2.1 Common parameters

9.2.1.1 Add/Delete Indicator

The add/delete indicator shall notify the CRNC whether the associated resource has been added to or removed from the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Add/Delete Indicator			ENUMERATED (Add, Delete)	

9.2.1.1A Allocation/Retention Priority

This parameter indicates the priority level in the allocation and retention of Node B internal resources. See Annex A.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Priority Level	M		INTEGER (0..15)	This IE indicates the priority of the request. **Usage:** Value "0" means "Spare"; It shall be treated as a logical error if received. Values between "1" and "14" are ordered in decreasing order of priority, "1" being the highest and "14" the lowest. Value "15" means "No Priority".
Pre-emption Capability	M		ENUMERATED (shall not trigger pre-emption, may trigger pre-emption)	
Pre-emption Vulnerability	M		ENUMERATED (not pre-emtable, pre-emptable)	

9.2.1.1B Alternative Format Reporting Indicator

This IE indicates if Node B may report a measurement using an alternative format.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Alternative Format Reporting Indicator			ENUMERATED (Alternative format is allowed, …)	

9.2.1.2 Availability Status

The availability status is used to indicate more detailed information of the availability of the resource. In accordance with ref. [3], following values are defined. If the value of this IE is "empty", this implies that none of the status conditions described in ref. [3] are present.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Availability Status			ENUMERATED (empty, in test, failed, power off, off line, off duty, dependency, degraded, not installed, log full, …)	

9.2.1.3 BCCH Modification Time

Indicates the time after which the new system information shall be applied on BCCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
BCCH Modification Time			INTEGER (0..511)	All SFN values in which MIB may be mapped are allowed. The tabular description is presented in [18].

9.2.1.4 Binding ID

The Binding ID is the identifier of a user data stream.

In case of transport bearer establishment with ALCAP [2][31], this IE contains the identifier that is allocated at the Node B and that is unique for each transport bearer under establishment to/from the Node B.

If the Transport Layer Address contains an IP address [29], this IE contains the UDP port [30] intended to be used for the user plane transport.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Binding ID			OCTET STRING (1..4,…)	If the Binding ID includes an UDP port, the UDP port is included in octets 1 and 2. The first octet of the UDP port field shall be included in the first octet of the Binding ID.

9.2.1.4A BLER

Void.

9.2.1.5 Blocking Priority Indicator

The Blocking priority indicator shall indicate the immediacy with which a resource should be blocked from use. The following priority classes shall be supported in the Blocking priority indicator.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Blocking Priority Indicator			ENUMERATED (High, Normal, Low, …)	"High" priority: Block resource immediately. "Normal" priority: Block resource when idle or upon timer expiry. "Low" priority: Block resource when idle.

9.2.1.5A Burst Mode Parameters

The *Burst Mode Parameters* IE provides information to be applied for IPDL burst mode.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Burst Start	M		INTEGER (0..15)	See [10] and [21]
Burst Length	M		INTEGER (10..25)	See [10] and [21]
Burst Freq	M		INTEGER (1..16)	See [10] and [21]

9.2.1.5B Broadcast Common Transport Bearer Indication

The *Broadcast Common Transport Bearer Indication* IE is used by the Node B to inform the CRNC that the transport bearer of the existing Common Transport Channel which is indicated by the *Common Transport Channel ID* IE and *C-*

ID IE, shall be used instead of establishing a new transport bearer. If there are more than one Common Transport Channels sharing the same transport bearer, Node B may include any one of these Common Transport Channels together with its corresponding C-ID in *Broadcast Common Transport Bearer Indication* IE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Transport Channel ID	M		9.2.1.14	
C-ID	M		9.2.1.9	

9.2.1.5C Broadcast Reference

The *Broadcast Reference* IE is a unique identifier within the CRNC identifying the intended usage of a requested Common Transport Channel (e.g. the *Broadcast Reference* IE may identify a particular MBMS session).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Broadcast Reference			BIT STRING (SIZE(24))	

9.2.1.6 Cause

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Cause Group*	M			
>Radio Network Layer				
>>Radio Network Layer Cause	M		ENUMERATED (unknown C-ID, Cell not available, Power level not supported, DL radio resources not available, UL radio resources not available, RL Already Activated/allocated, Node B Resources Unavailable, Measurement not supported for the object, Combining Resources not available, Requested configuration not supported, Synchronization failure, Priority transport channel established, SIB Origination in Node B not Supported, Requested Tx Diversity Mode not supported, Unspecified, BCCH scheduling error, Measurement Temporarily not Available, Invalid CM Setting, Reconfiguration CFN not elapsed, Number of DL codes not supported, S-CPICH not supported, Combining not supported, UL SF not supported, DL SF not supported, Common Transport Channel Type not supported, Dedicated Transport Channel Type not supported, Downlink Shared Channel Type not supported, Uplink Shared Channel Type not supported, CM not supported, Tx diversity no longer supported, Unknown Local Cell ID, …, Number of UL codes not supported, Information temporarily not available, Information Provision not supported for the object, Cell Synchronisation not supported, Cell Synchronisation Adjustment not supported, DPC Mode Change not Supported,	

			IPDL already activated, IPDL not supported, IPDL parameters not available, Frequency Acquisition not supported, Power Balancing status not compatible, Requested type of Bearer Re-arrangement not supported, Signalling Bearer Re-arrangement not supported, Bearer Re-arrangement needed, Delayed Activation not Supported, RL Timing Adjustment not supported, MICH not supported, F-DPCH Not Supported, Modification Period not available, PLCCH not supported, Continuous Packet Connectivity DTX-DRX operation not available, Continuous Packet Connectivity UE DTX Cycle not available, MIMO not available)	
>Transport Layer				
>>Transport Layer Cause	M		ENUMERATED (Transport resource unavailable, Unspecified, …)	
>Protocol				
>>Protocol Cause	M		ENUMERATED (Transfer syntax error, Abstract syntax error (reject), Abstract syntax error (ignore and notify), Message not compatible with receiver state, Semantic error, Unspecified, Abstract syntax error (falsely constructed message), …)	
>Misc				
>>Miscellaneous Cause	M		ENUMERATED (Control processing overload Hardware failure, O&M intervention, Not enough user plane processing resources, Unspecified, …)	

The meaning of the different cause values is described in the following table. In general, "not supported" cause values indicate that the concerned capability is missing. On the other hand, "not available" cause values indicate that the concerned capability is present, but insufficient resources were available to perform the requested action.

Radio Network Layer cause	Meaning
BCCH scheduling error	The Node B has detected an illegal BCCH schedule update (see subclause 8.2.16.3).

Bearer Re-arrangement needed	The Node B cannot perform the requested Radio Link Reconfiguration without bearer re-arrangement.
Cell not Available	The concerned cell or local cell is not available.
Cell Synchronisation not supported	The concerned cell(s) do not support Cell Synchronisation.
Combining not supported	The Node B does not support RL combining for the concerned cells.
Combining Resources Not Available	The value of the received *Diversity Control Field* IE was set to "Must", but the Node B cannot perform the requested combining.
CM not supported	The concerned cell(s) do not support Compressed Mode.
Common Transport Channel Type not supported	The concerned cell(s) do not support the RACH and/or FACH Common Transport Channel Type.
Continuous Packet Connectivity DTX-DRX operation not available	CPC resources for DTX-DRX operation not available in the concerned cell(s).
Continuous Packet Connectivity UE DTX Cycle not available	CPC resources for the UE DTX Cycle not available in the concerned cell(s).
Dedicated Transport Channel Type not supported	The concerned cell(s) do not support the Dedicated Transport Channel Type.
Delayed Activation not Supported	The concerned cell(s) do not support delayed activation of RLs.
DL Radio Resources not Available	The Node B does not have sufficient DL radio resources available.
DL SF not supported	The concerned cell(s) do not support the requested DL SF.
DL Shared Channel Type not supported	The concerned cell(s) do not support the Downlink Shared Channel Type.
DPC Mode Change not Supported	The concerned cells do not support DPC mode changes.
Frequency Acquisition not supported	The concerned cell(s) do not support Frequency Acquisition.
F-DPCH not supported	The concerned cell(s) do not support the Fractional DPCH
Information Provision not supported for the object	The requested information provision is not supported for the concerned object types.
Information temporarily not available	The requested information can temporarily not be provided.
Invalid CM Settings	The concerned cell(s) consider the requested Compressed Mode settings invalid.
IPDL already activated	The concerned cell(s) have already active IPDL ongoing.
IPDL not supported	The concerned cell(s) do not support the IPDL.
IPDL parameters not available	The concerned cell(s) do not have IPDL parameters defining IPDL to be applied.
Measurement not Supported For The Object	At least one of the concerned cell(s) does not support the requested measurement on the concerned object type.
Measurement Temporarily not Available	The Node B can temporarily not provide the requested measurement value.
MICH not supported	The concerned cell does not support MICH.
MIMO not available	MIMO resources not available in the concerned cell(s).
Modificaton Period not available	The Node B does not have modification period available.
Node B resources unavailable	The Node B does not have sufficient resources available.
Number of DL codes not supported	The concerned cell(s) do not support the requested number of DL codes.
Number of UL codes not supported	The concerned cell(s) do not support the requested number of UL codes.
Power Level not Supported	A DL power level was requested which the concerned cell(s) do not support.
Power Balancing status not compatible	The power balancing status in the SRNC is not compatible with that of the Node B.
PLCCH not supported	The concerned cell does not support PLCCH.
Priority transport channel established	The CRNC cannot perform the requested blocking since a transport channel with a high priority is present.
RL Timing Adjustment not Supported	The concerned cell(s) do not support adjustments of the RL timing.
Reconfiguration CFN not elapsed	The requested action cannot be performed due to that a RADIO LINK RECONFIGURATION COMMIT message was received previously, but the concerned CFN has not yet elapsed.
Requested Configuration not Supported	The concerned cell(s) do not support the requested configuration i.e. power levels, Transport Formats, physical channel parameters.
Requested Type of Bearer Re-arrangement not supported	The Node B does not support the requested type of bearer re-arrangement.
Requested Tx Diversity mode not supported	The concerned cell(s) do not support the requested transmit diversity mode.

RL already Activated/ allocated	The Node B has already allocated an RL with the requested RL-id for this UE context.
S-CPICH not supported	The concerned cell(s) do not support S-CPICH.
SIB Orgination in Node B not Supported	The Node B does not support the origination of the requested SIB for the concerned cell.
Signalling Bearer Re-arrangement not supported	The Node B does not support the Signalling bearer re-arrangement.
Synchronisation Failure	Loss of UL Uu synchronisation.
Cell Synchronisation Adjustment not supported	The concerned cell(s) do not support Cell Synchronisation Adjustment.
Tx diversity no longer supported	Tx diversity can no longer be supported in the concerned cell.
UL Radio Resources not Available	The Node B does not have sufficient UL radio resources available.
UL SF not supported	The concerned cell(s) do not support the requested minimum UL SF.
UL Shared Channel Type not supported	The concerned cell(s) do not support the Uplink Shared Channel Type.
Unknown C-ID	The Node B is not aware of a cell with the provided C-ID.
Unknown Local Cell ID	The Node B is not aware of a local cell with the provided Local Cell ID
Unspecified	Sent when none of the above cause values applies but still the cause is Radio Network layer related.

Transport Network Layer cause	**Meaning**
Transport resource unavailable	The required transport resources are not available.
Unspecified	Sent when none of the above cause values applies but still the cause is Transport Network layer related.

Protocol cause	**Meaning**
Abstract Syntax Error (Reject)	The received message included an abstract syntax error and the concerned criticality indicated "reject" (see subclause 10.3).
Abstract Syntax Error (Ignore and Notify)	The received message included an abstract syntax error and the concerned criticality indicated "ignore and notify" (see subclause 10.3).
Abstract syntax error (falsely constructed message)	The received message contained IEs in wrong order or with too many occurrences (see subclause 10.3).
Message not Compatible with Receiver State	The received message was not compatible with the receiver state (see subclause 10.4).
Semantic Error	The received message included a semantic error (see subclause 10.4).
Transfer Syntax Error	The received message included a transfer syntax error (see subclause 10.2).
Unspecified	Sent when none of the above cause values applies but still the cause is protocol related.

Miscellaneous cause	**Meaning**
Control Processing Overload	Node B control processing overload.
Hardware Failure	Node B hardware failure.
Not enough User Plane Processing Resources	Node B has insufficient user plane processing resources available.
O&M Intervention	Operation and Maintenance intervention related to Node B equipment.
Unspecified	Sent when none of the above cause values applies and the cause is not related to any of the categories Radio Network Layer, Transport Network Layer or Protocol.

9.2.1.7 CFN

Connection Frame Number for the radio connection, see ref. [17].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CFN			INTEGER (0..255)	

9.2.1.8 CFN Offset

Void.

9.2.1.9 C-ID

The C-ID (Cell identifier) is the identifier of a cell in one RNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
C-ID			INTEGER (0..65535)	

9.2.1.9A Common Channels Capacity Consumption Law

The capacity consumption law indicates to the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the allocated Spreading Factor. [FDD - For the PRACH, the reference spreading factor shall be the minimum possible spreading factor amongst the ones defined by the *RACH Slot Format* IE(s) in the Common Transport Channel Setup or Reconfiguration procedures.]

This capacity consumption law indicates the consumption law to be used with the following procedures:

- Common Transport Channel Setup
- Common Transport Channel Deletion
- [FDD - Common Transport Channel Reconfiguration]

For the Common Transport Channel Setup procedure, the cost given in the consumption law shall be debited from the Capacity Credit, whereas it shall be credited to the Capacity Credit for the Common Transport Channel Deletion one.

[FDD - For the Common Transport Channel Reconfiguration procedure, the difference of the consumption cost for the new spreading factor and the consumption cost for the old spreading factor shall be debited from the Capacity Credit (or credited if this difference is negative).]

If the modelling of the internal resource capability of the Node B is modelled independently for the Uplink and Downlink, the "DL cost" shall be applied to the "DL or Global Capacity Credit" and the "UL Cost" shall be applied to the "UL Capacity Credit". If it is modelled as shared resources, both the "DL cost" and the "UL cost" shall be applied to the "DL or Global Capacity Credit".

[FDD - When the Common Transport Channel Setup, Deletion or Reconfiguration procedures are used, the Capacity Credit shall be updated considering all physical channels related in these procedures (S-CCPCH, PICH, PRACH and AICH), i.e. one cost shall be credited to or debited from the Capacity Credit per physical channel.]

[FDD - The costs given in the consumption law are the costs per channelization code. When multiple channelization codes are used by a physical channel, the cost credited to or debited from the Capacity Credit for this physical channel shall be taken as N times the cost given in the consumption law, where N is the number of channelization codes.]

[TDD - When the Common Transport Channel Setup or Deletion procedures are used, the Capacity Credit shall be updated considering all physical channels related in these procedures (S-CCPCH, PICH, PRACH), i.e. one cost shall be credited to or debited from the Capacity Credit per physical channel.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SF Allocation Law		*1..<maxnoofSFs>*		[FDD - For each SF, cost of its allocation: the first instance corresponds to SF = 4, the second to SF = 8, the third to SF = 16 and so on.] [TDD - For each SF, cost of its allocation: the first instance corresponds to SF = 1, the second to SF = 2, the third to SF = 4 and so on.]
>DL cost	M		INTEGER (0..65535)	
>UL cost	M		INTEGER (0..65535)	

Range Bound	Explanation
maxnoofSFs	Maximum number of Spreading Factors

9.2.1.9B Common Measurement Accuracy

The *Common Measurement Accuracy* IE indicates the accuracy of the common measurement.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Common Measurement Accuracy*	M			
>*$T_{UTRAN-GPS}$ Measurement Accuracy Class*				
>>$T_{UTRAN-GPS}$ Measurement Accuracy Class	M		$T_{UTRAN-GPS}$ Accuracy Class 9.2.1.64C	
>*$T_{UTRAN-GANSS}$ Measurement Accuracy Class*				
>>$T_{UTRAN-GANSS}$ Measurement Accuracy Class	M		$T_{UTRAN-GANSS}$ Accuracy Class 9.2.1.98	

9.2.1.10 Common Measurement Object Type

Void.

9.2.1.11 Common Measurement Type

The Common Measurement Type identifies which measurement that shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Measurement Type			ENUMERATED (Received Total Wide Band Power, Transmitted Carrier Power, Acknowledged PRACH Preambles, UL Timeslot ISCP, NotUsed-1, NotUsed-2, …, UTRAN GPS Timing of Cell Frames for UE Positioning, SFN-SFN Observed Time Difference, Transmitted carrier power of all codes not used for HS transmission, HS-DSCH Required Power, HS-DSCH Provided Bit Rate, Received Total Wide Band Power for Cell Portion, Transmitted Carrier Power for Cell Portion, Transmitted carrier power of all codes not used for HS-PDSCH HS-SCCH E-AGCH E-RGCH or E-HICH transmission for Cell Portion, UpPCH Interference, DL Transmission Branch Load, HS-DSCH Required Power for Cell Portion, HS-DSCH Provided Bit Rate for Cell Portion, E-DCH Provided Bit Rate, E-DCH Non-serving Relative Grant Down Commands, Received Scheduled E-DCH Power Share, Received Scheduled E-DCH Power Share for Cell Portion, UTRAN GANSS Timing of Cell Frames for UE Positioning)	"UL Timeslot ISCP" is used by TDD only, "Acknowledged PRACH Preambles", 'DL Transmission Branch Load' are used by FDD only, 'UpPCH interference' is used by 1.28Mcps TDD only. This IE shall never be set to the values that are prefixed "NotUsed-". [TDD - The IE Type "Transmitted carrier power of all codes not used for HS transmission" corresponds to the measurement "Transmitted carrier power of all codes not used for HS-PDSCH [TDD - E-AGCH, E-HICH] or HS-SCCH transmission" in [5] and [23].] [FDD - The IE Type "Transmitted carrier power of all codes not used for HS transmission" corresponds to the measurement "Transmitted carrier power of all codes not used for HS-PDSCH HS-SCCH E-AGCH E-RGCH or E-HICH transmission" in [4] and [22].]

9.2.1.12 Common Measurement Value

The Common Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE *Common Measurement Value*	M				–	
>Transmitted Carrier Power						
>>Transmitted Carrier Power Value	M		INTEGER (0..100)	According to mapping in [22] and [23]	–	
>Received Total Wide Band Power						
>>Received Total Wide Band Power Value	M		INTEGER (0..621)	According to mapping in [22] and [23]	–	
>Acknowledged PRACH Preambles				FDD Only		
>>Acknowledged PRACH Preamble Value	M		INTEGER (0..240,…)	According to mapping in [22]	–	
>UL Timeslot ISCP				TDD Only		
>>UL Timeslot ISCP	M		INTEGER (0..127)	According to mapping in [23]	–	
>Not used 1			NULL	This choice shall not be used. Ignore if received.		
>Not Used 2			NULL	This choice shall not be used. Ignore if received.		
>Additional Common Measurement Values				See Note 1		
>>UTRAN GPS Timing Of Cell Frames for UE Positioning						
>>>$T_{UTRAN-GPS}$ Measurement Value Information	M		9.2.1.64A		YES	ignore
>>SFN-SFN Observed Time Difference						
>>>SFN-SFN Measurement Value Information	M		9.2.1.53E		YES	ignore
>>Transmitted Carrier Power Of All Codes Not Used For HSTransmission						
>>>Transmitted Carrier Power Of All Codes Not Used For HSTransmission Value	M		INTEGER (0..100)	According to mapping in [22], measurement "Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICHTransmission" and mapping in [23], measurement "Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH Or HS-SCCH Transmission"	YES	ignore
>>HS-DSCH Required Power						
>>>HS-DSCH Required Power	M		9.2.1.31Ic		YES	ignore

Value Information						
>>HS-DSCH Provided Bit Rate						
>>>HS-DSCH Provided Bit Rate Value Information	M		9.2.1.31Ib		YES	ignore
>>Transmitted Carrier Power For Cell Portion				FDD Only		
>>>**Transmitted Carrier Power For Cell Portion Value**		*1..<maxNrOfCellPortions>*			GLOBAL	ignore
>>>>Cell Portion ID	M		9.2.2.1Ca		–	
>>>>Transmitted Carrier Power Value	M		INTEGER (0..100)	According to mapping in [22]	–	
>>Received Total Wide Band Power For Cell Portion				FDD Only		
>>>**Received Total Wide Band Power For Cell Portion Value**		*1..<maxNrOfCellPortions>*			GLOBAL	ignore
>>>>Cell Portion ID	M		9.2.2.1Ca		–	
>>>>Received Total Wide Band Power Value	M		INTEGER (0..621)	According to mapping in [22]	–	
>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission For Cell Portion				FDD Only		
>>>**Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission For Cell Portion Value**		*1..<maxNrOfCellPortions>*			GLOBAL	ignore
>>>>Cell Portion ID	M		9.2.2.1Ca		–	
>>>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission Value	M		INTEGER (0..100)	According to mapping in [22]	–	
>>UpPCH interference				1.28Mcps TDD Only		
>>>UpPCH interference Value	M		INTEGER (0..127,…)	According to mapping in [23]	YES	ignore

>>DL Transmission Branch Load				FDD Only		
>>>Node B DL Transmission Branch Load Values	M		INTEGER (0..101,…)	According to mapping in [22]	YES	ignore
>>HS-DSCH Required Power For Cell Portion				FDD Only		
>>>HS-DSCH Required Power For Cell Portion Information		*1..<maxNrOfCellPortions>*			GLOBAL	ignore
>>>>Cell Portion ID	M		9.2.2.1Ca		–	
>>>>HS-DSCH Required Power Value Information	M		9.2.1.31Ic		–	
>>HS-DSCH Provided Bit Rate For Cell Portion				FDD Only		
>>>HS-DSCH Provided Bit Rate For Cell Portion Information		*1..<maxNrOfCellPortions>*			GLOBAL	ignore
>>>>Cell Portion ID	M		9.2.2.1Ca		–	
>>>>HS-DSCH Provided Bit Rate Value Information	M		9.2.1.31Ib		–	
>>E-DCH Provided Bit Rate						
>>>E-DCH Provided Bit Rate Value Information	M		9.2.1.78		YES	ignore
>>E-DCH Non-serving Relative Grant Down Commands				FDD Only		
>>>E-DCH Non-serving Relative Grant Down Commands Value Information	M		INTEGER (0..100,…)	Down Commands per second	YES	ignore
>>Received Scheduled E-DCH Power Share				FDD Only According to definition in [4]		
>>>Received Scheduled E-DCH Power Share		*1*			YES	ignore
>>>>RSEPS Value	M		INTEGER (0..151)	According to mapping in [22]	–	
>>>>RTWP* Value	O		INTEGER (0..621)	According to mapping of RTWP in [22]	–	
>>Received Scheduled E-DCH Power Share for Cell Portion				FDD only According to definition in [4]		
>>>**Received Scheduled E-DCH Power Share For Cell Portion Value**		*1..<maxNrOfCellPortions>*			GLOBAL	ignore

>>>>Cell Portion ID	M		9.2.2.1Ca		–	
>>>>RSEPS for Cell Portion Value	M		INTEGER (0..151)	According to mapping in [22].	–	
>>>>RTWP* for Cell Portion Value	O		INTEGER (0..621)	According to mapping of RTWP in [22]	–	
>>UTRAN GANSS Timing Of Cell Frames for UE Positioning						
>>>$T_{UTRAN-GANSS}$ Measurement Value Information	M		9.2.1.100		YES	ignore

Note 1: This information element is a simplified representation of the ASN.1. The choice is performed through the use of a ProtocolIE-Single-Container and a ProtocolExtensionContainer within the ASN.1.

Range Bound	Explanation
MaxNrOfCellPortions	Maximum number of Cell Portions in a cell

9.2.1.12A Common Measurement Value Information

The *Common Measurement Value Information* IE provides information both on whether the Common Measurement Value is provided in the message or not and if provided also the Common Measurement Value itself.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Measurement Availability Indicator*	M			
>Measurement Available				
>>Common Measurement Value	M		9.2.1.12	
>Measurement Not Available			NULL	

9.2.1.13 Common Physical Channel ID

Common Physical Channel ID is the unique identifier for one common physical channel within a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Physical Channel ID			INTEGER (0..255)	

9.2.1.13A Common Physical Channel Status Information

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Physical Channel ID	M		9.2.1.13	
Resource Operational State	M		9.2.1.52	
Availability Status	M		9.2.1.2	

9.2.1.14 Common Transport Channel ID

Common Transport Channel ID is the unique identifier for one common transport channel within a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Transport Channel ID			INTEGER (0..255)	

9.2.1.14A Common Transport Channel Information Response

The *Common Transport Channel Information Response* IE provides information for Common Transport Channels that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Common Transport Channel ID	M		9.2.1.14		–	
Binding ID	O		9.2.1.4		–	
Transport Layer Address	O		9.2.1.63		–	
Broadcast Common Transport Bearer Indication	O		9.2.1.5B		YES	ignore
IP Multicast Data Bearer Indication	O		9.2.1.109		YES	ignore

9.2.1.14B Common Transport Channel Status Information

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Transport Channel ID	M		9.2.1.14	
Resource Operational State	M		9.2.1.52	
Availability Status	M		9.2.1.2	

9.2.1.15 Communication Control Port ID

A Communication Control Port corresponds to one signalling bearer between the CRNC and the Node B for the control of Node B Communication Contexts. The Node B may have multiple Communication Control Ports (one per Traffic Termination Point). The Communication Control Port is selected at creation of the Node B Communication Context. The Communication Control Port ID is the identifier of the Communication Control Port.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Communication Control Port ID			INTEGER (0..65535)	

9.2.1.16 Configuration Generation ID

The Configuration Generation ID describes the generation of the configuration of logical resources in a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Configuration Generation ID			INTEGER (0..255)	Value "0" means "No configuration". At possible wraparound of the ID counter in CRNC the value "0" shall not be used.

9.2.1.17 Criticality Diagnostics

The *Criticality Diagnostics* IE is sent by a Node B or the CRNC when parts of a received message have not been comprehended or are missing, or if the message contained logical errors. When applicable, it contains information about which IEs that were not comprehended or were missing.

For further details on how to use the *Criticality Diagnostics* IE, see Annex C.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Procedure ID		*0..1*		Procedure ID is to be used if Criticality Diagnostics is part of Error Indication procedure, and not within the response message of the same procedure that caused the error	–	
>Procedure Code	M		INTEGER (0..255)		–	
>Ddmode	M		ENUMERATED (TDD, FDD, Common, …)	"Common" = common to FDD and TDD.	–	
Triggering Message	O		ENUMERATED (initiating message, successful outcome, unsuccessful outcome, outcome)	The Triggering Message is used only if the Criticality Diagnostics is part of Error Indication.	–	
Procedure Criticality	O		ENUMERATED (reject, ignore, notify)	This Procedure Criticality is used for reporting the Criticality of the Triggering message (Procedure).	–	
Transaction ID	O		9.2.1.62		–	
Information Element Criticality Diagnostics		*0..<maxnooferrors>*			–	
>IE Criticality	M		ENUMERATED (reject, ignore, notify)	The IE Criticality is used for reporting the criticality of the triggering IE. The value "ignore" shall never be used.	–	
>IE ID	M		INTEGER (0..65535)	The IE ID of the not understood or missing IE	–	
>Repetition Number	O		INTEGER (0..255)	The *Repetition Number* IE gives: for a not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence for a missing IE: The number of occurrences up to but not including the missing occurrence. Note: All the counted occurrences of the reported IE must have the same topdown hierarchical message structure of IEs with assigned criticality above them.	–	

>Message Structure	O		9.2.1.45A	The *Message Structure* IE describes the structure where the not understood or missing IE was detected. This IE is included if the not understood IE is not the top level of the message.	YES	ignore
>Type Of Error	M		ENUMERATED (not understood, missing, …)		YES	ignore

Range Bound	Explanation
maxnooferrors	Maximum number of IE errors allowed to be reported with a single message.

9.2.1.18 CRNC Communication Context ID

The CRNC Communication Context ID is the identifier of the Communication Context in the CRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CRNC Communication Context ID			INTEGER (0..2^20 – 1)	"2^20-1" is a reserved value indicating all the CRNC Communication Contexts that can be reached by the Communication Control Port (All CRNCCC).

9.2.1.18A CTFC

The CTFC is an integer number calculated in accordance with [18], subclause 14.10. Regarding the channel ordering, for all transport channels, "TrCH1" corresponds to the transport channel having the lowest transport channel identity among all configured transport channels on this CCTrCH. "TrCH2" corresponds to the transport channel having the next lowest transport channel identity, and so on.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *CTFC Format*	M			
>2 bits long				
>>CTFC value	M		INTEGER (0..3)	
>4 bits long				
>>CTFC value	M		INTEGER (0..15)	
>6 bits long				
>>CTFC value	M		INTEGER (0..63)	
>8 bits long				
>>CTFC value	M		INTEGER (0..255)	
>12 bits long				
>>CTFC value	M		INTEGER (0..4095)	
>16 bits long				
>>CTFC value	M		INTEGER (0..65535)	
>max nb bits long				
>>CTFC value	M		INTEGER (0..maxCTFC)	

Range Bound	Explanation
MaxCTFC	Maximum number of the CTFC value is calculated according to the following: $\sum_{i=1}^{I}(L_i - 1)P_i$ with the notation according to ref. [18]

9.2.1.19 DCH Combination Indicator

Void.

9.2.1.20 DCH ID

The DCH ID is the identifier of an active dedicated transport channel. It is unique for each active DCH among the active DCHs simultaneously allocated for the same UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DCH ID			INTEGER (0..255)	

9.2.1.20A Dedicated Channels Capacity Consumption Law

The capacity consumption law indicates to the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the [FDD - allocated Spreading Factor and the RL/RLS situation] [TDD - allocated Spreading Factor on each DPCH and the assigned timeslot]. [FDD - In Uplink, the reference spreading factor shall be the minimum spreading factor signalled in the Radio Link Setup Request message. This is signalled using the *Min UL Channelisation Code Length* IE.]

This capacity consumption law indicates the consumption law to be used with the following procedures :

- Radio Link Setup
- Radio Link Addition
- Radio Link Reconfiguration
- Radio Link Deletion
- [TDD - Physical Shared Channel Reconfiguration]

For the Radio Link Setup and Radio Link Addition procedures, the cost given in the consumption law shall be debited from the Capacity Credit, whereas it shall credited to the Capacity Credit for the Radio Link Deletion procedure. For the Radio Link Reconfiguration procedure, the difference of the consumption cost for the new spreading factor and the consumption cost for the old spreading factor shall be debited from the Capacity Credit (or credited when this difference is negative).

If the modelling of the internal resource capability of the Node B is modelled independently for the Uplink and Downlink, the DL cost shall be applied to the DL or Global Capacity Credit and the UL Cost shall be applied to the UL Capacity Credit. If it is modelled as shared resources, both the DL costs and the UL costs shall be applied to the DL or Global Capacity Credit.

[FDD - For a Radio Link creating a Radio Link Set (first RL of a RLS), the cost for the RL (cost 2) and RLS (cost 1) shall be taken into account. When adding a Radio Link to a Radio Link Set, only the RL cost (cost 2) shall be taken into account.
In the case where multiple Radio Links are established in one procedure, for every created Radio Link Set, the first Radio Link is always the Radio Link with the lowest repetition number.]

[FDD - The costs given in the consumption law are the costs per channelization code. When multiple channelization codes are used by either the radio links, the cost credited to or debited from the Capacity Credit shall be taken as N times the cost for one code, where N is the number of channelization codes.]

[TDD - The cost for a radio link is a sum of the costs for each DPCH. For the first DPCH assigned to any user in a cell within a timeslot, the initial cost for a DPCH in a timeslot (cost 1) and the cost for a DPCH (cost 2) shall be taken into account. For any DPCH that is not the first DPCH assigned for any user in a cell within a timeslot, only the cost for a DPCH (cost 2) shall be taken into account.]

[TDD - The cost for shared channels is the sum of the costs for each PDSCH and PUSCH assigned to a PUSCH or PDSCH set. For the first PDSCH or PUSCH assigned to any user in a cell within a timeslot, the initial cost for a PDSCH/PUSCH in a timeslot (cost 1) and the cost for a PDSCH/PUSCH (cost 2) shall be taken into account. For any PDSCH/PUSCH that is not the first PDSCH/PUSCH assigned to any user in a cell within a timeslot, only the cost for a PDSCH/PUSCH (cost 2) shall be taken into account.]

[TDD - In the case of Physical Shared Channel Reconfiguration, the sum of the consumption cost of the each PDSCH/PUSCH of the previous configuration shall be credited to the capacity credit, and the sum of the consumption cost of each PDSCH/PUSCH of the new configuration shall be subtracted from the capacity credit.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SF Allocation Law		*1..<maxnoofSFs>*		[FDD - For each SF, cost of its allocation: the first instance corresponds to SF = 4, the second to SF = 8, the third to SF = 16 and so on.] [TDD - For each SF, cost of its allocation: the first instance corresponds to SF = 1, the second to SF = 2, the third to SF = 4 and so on.]
>DL Cost 1	M		INTEGER (0..65535)	[FDD - This is the cost of a RLS.] [TDD - This is the additional cost of the first DPCH/PDSCH/PUSCH assigned to any user in a cell within a timeslot.]
>DL Cost 2	M		INTEGER (0..65535)	[FDD - This is the cost of a RL.] [TDD - This is the cost of a DPCH/PDSCH/PUSCH]
>UL Cost 1	M		INTEGER (0..65535)	[FDD - This is the cost of a RLS.] [TDD - This is the additional cost of the first DPCH/PDSCH/PUSCH assigned to any user in a cell within a timeslot.]
>UL Cost 2	M		INTEGER (0..65535)	[FDD - This is the cost of a RL.] [TDD - This is the cost of a DPCH/PDSCH/PUSCH.]

Range Bound	Explanation
maxnoofSFs	Maximum number of Spreading Factors

9.2.1.20B DL Or Global Capacity Credit

The capacity credit indicates to the CRNC the Downlink or global capacity of a Local Cell or a Local Cell Group.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Or Global Capacity Credit			INTEGER (0..65535)	

9.2.1.20C DCH Information Response

The *DCH Information Response* IE provides information for DCHs that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DCH Information Response		*1..<maxnoofDCHs>*		Only one DCH per set of coordinated DCHs shall be included	–	
>DCH ID	M		9.2.1.20		–	
>Binding ID	O		9.2.1.4		–	
>Transport Layer Address	O		9.2.1.63		–	
>Transport Bearer Not Setup Indicator	O		9.2.2.4H	FDD only	YES	ignore

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCH per UE

9.2.1.21 DL Power

The *DL Power* IE indicates a power level relative to the [FDD - primary CPICH power] [TDD - primary CCPCH power] configured in a cell. If Transmit Diversity is applied to a downlink physical channel, the *DL Power* IE indicates the power offset between the linear sum of the power for this downlink physical channel on all branches and the [FDD - primary CPICH power] [TDD - PCCPCH power] configured in a cell.

[FDD - If referred to a DPCH, it indicates the power of the transmitted DPDCH symbols.] [FDD - If referred to an F-DPCH, it indicates the Reference F-DPCH TX Power.]

[TDD - If referred to a DPCH or PDSCH, it indicates the power of a spreading factor 16 code, the power for a spreading factor 1 code would be 12 dB higher. If referred to a SCCPCH, the *DL Power* IE specifies the maximum power of the SCCPCH.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Power			INTEGER (-350..150)	Value = DL Power /10 Unit: dB Range: -35.0 .. +15.0 dB Step: 0.1dB

9.2.1.22 Dedicated Measurement Object Type

Void.

9.2.1.23 Dedicated Measurement Type

The Dedicated Measurement Type identifies the type of measurement that shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Dedicated Measurement Type			ENUMERATED (SIR, SIR Error, Transmitted Code Power, RSCP, Rx Timing Deviation, Round Trip Time, …, Rx Timing Deviation LCR, Angle Of Arrival LCR, HS-SICH reception quality, Best Cell Portions, Rx Timing Deviation 7.68Mcps, Rx Timing Deviation 3.84 Mcps Extended)	"RSCP" and "HS-SICH reception quality" are used by TDD only. "Rx Timing Deviation" and "Rx Timing Deviation 3.84 Mcps Extended" are used by 3.84Mcps TDD only. "Rx Timing Deviation LCR", "Angle Of Arrival LCR" are used by 1.28Mcps TDD only. "Round Trip Time", "SIR Error" are used by FDD only. 'Best Cell Portions' is used by FDD only. "Rx Timing Deviation 7.68Mcps" is used by 7.68Mcps TDD only.

Note: For definitions of the measurement types refer to [4] and [5].

9.2.1.24 Dedicated Measurement Value

The Dedicated Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE *Dedicated Measurement Value*	M				–	
>SIR Value						
>>SIR Value	M		INTEGER (0..63)	According to mapping in [22] and [23]	–	
>SIR Error Value				FDD only		
>>SIR Error Value	M		INTEGER (0..125)	According to mapping in [22]	–	
>Transmitted Code Power Value						
>>Transmitted Code Power Value	M		INTEGER (0..127)	According to mapping in [22] and [23]. Values 0 to 9 and 123 to 127 shall not be used.	–	
>RSCP				TDD only		
>>RSCP	M		INTEGER (0..127)	According to mapping in [23]	–	
>Rx Timing Deviation Value				Applicable to 3.84Mcps TDD only		
>>Rx Timing Deviation	M		INTEGER (0..8191)	According to mapping in [23]	–	
>Round Trip Time				FDD only		
>>Round Trip Time	M		INTEGER (0..32767)	According to mapping in [22]	–	
>Additional Dedicated Measurement Values				See Note 1.		
>>Rx Timing Deviation Value LCR				Applicable to 1.28Mcps TDD only		
>>>Rx Timing Deviation LCR	M		INTEGER (0..511)	According to mapping in [23]	YES	reject
>>Angle Of Arrival Value LCR				Applicable to 1.28Mcps TDD only		
>>>AOA Value LCR		*1*			YES	reject
>>>>AOA LCR	M		INTEGER (0..719)	According to mapping in [23]	–	
>>>>AOA LCR Accuracy Class	M		ENUMERATED (A, B, C, D, E, F, G, H,...)	According to mapping in [23]	–	
>>HS-SICH Reception Quality				Applicable to TDD only		
>>>HS-SICH Reception Quality Value		*1*			YES	reject
>>>>Failed HS-SICH	M		INTEGER (0..20)	According to mapping in [23]	–	
>>>>Missed HS-SICH	M		INTEGER (0..20)	According to mapping in [23]	–	
>>>>Total HS-SICH	M		INTEGER (0..20)	According to mapping in [23]	–	
>>>>Failed HS-SICH LCR extension	O		INTEGER (0..20)	According to mapping in [23] Mandatory for LCR TDD when there are more than 20 failed HS-SICH	YES	reject
>>>>Missed HS-SICH LCR extension	O		INTEGER (0..20)	According to mapping in [23] Mandatory for LCR TDD when there are more than 20 missed	YES	reject

				HS-SICH		
>>>>Total HS-SICH LCR extension	O		INTEGER (0..20)	According to mapping in [23] Mandatory for LCR TDD when there are more than 20 total HS-SICH	YES	reject
>>Best Cell Portions				FDD only		
>>>Best Cell Portions	M		9.2.2.1Ba		YES	reject
>>Rx Timing Deviation Value 7.68Mcps				Applicable to 7.68Mcps TDD only		
>>>Rx Timing Deviation 7.68Mcps	M		INTEGER (0..65535)	According to mapping in [23]	YES	reject
>>Rx Timing Deviation Value 3.84Mcps Extended				Applicable to 3.84Mcps TDD only		
>>>Rx Timing Deviation 3.84Mcps Extended	M		INTEGER (0..32767)	According to mapping in [23]	YES	reject
>>Extended Round Trip Time				FDD only		
>>>Extended Round Trip Time Value	M		INTEGER (32767..103041)	Continuation of intervals with step size as defined in [22].	YES	reject

Note 1: This information element is a simplified representation of the ASN.1. The choice is performed through the use of a ProtocolIE-Single-Container and a ProtocolExtensionContainer within the ASN.1.

9.2.1.24A Dedicated Measurement Value Information

The *Dedicated Measurement Value Information* IE provides information both on whether or not the Dedicated Measurement Value is provided in the message or not and if provided also the Dedicated Measurement Value itself.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Measurement Availability Indicator*	M			
>Measurement Available				
>>Dedicated Measurement Value	M		9.2.1.24	
>>CFN	O		9.2.1.7	Dedicated Measurement Time Reference
>Measurement Not Available			NULL	

9.2.1.24B DGPS Corrections

The DGPS Corrections IE contains DGPS information used by the UE Positioning A-GPS method. For further details on the meaning of parameters, see [28].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
GPS TOW	M		INTEGER (0..604799)	Time in seconds. This field indicates the baseline time for which the corrections are valid.
Status/Health	M		ENUMERATED (UDRE scale 1.0, UDRE scale 0.75, UDRE scale 0.5, UDRE scale 0.3, UDRE scale 0.1, no data, invalid data)	This field indicates the status of the differential corrections.
Satellite Information		*1..<maxNo Sat>*		
>SatID	M		INTEGER (0..63)	Identifies the satellite and is equal to (SV ID No - 1) where SV ID No is defined in [27].
>IODE	M		BIT STRING (8)	This IE is the sequence number for the ephemeris for the particular satellite. It can be used to determine if new ephemeris is used for calculating the corrections that are provided. This eight-bit IE is incremented for each new set of ephemeris for the satellite and may occupy the numerical range of [0, 239] during normal operations.
>UDRE	M		ENUMERATED (UDRE ≤1.0m, 1.0m < UDRE ≤ 4.0m, 4.0m < UDRE ≤ 8.0m, 8.0m < UDRE)	User Differential Range Error. This field provides an estimate of the uncertainty (1-σ) in the corrections for the particular satellite. The value in this field shall be multiplied by the UDRE Scale Factor in the common Corrections Status/Health field to determine the final UDRE estimate for the particular satellite
>PRC	M		INTEGER (-2047..2047)	Pseudo Range Correction Unit: m (meters) Step: 0.32 meters
>Range Correction Rate	M		INTEGER (-127..127)	Unit: m/s Step: 0.032 m/s

Range Bound	Explanation
maxNoSat	Maximum number of satellites for which information can be provided

9.2.1.24C Delayed Activation

The *Delayed Activation* IE indicates that the activation of the DL power shall be delayed until an indicated CFN or until a separate activation indication is received.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Delayed Activation*	M			
>CFN				
>>Activation CFN	M		CFN 9.2.1.7	
>Separate Indication			NULL	

9.2.1.24D Delayed Activation Update

The *Delayed Activation Update* IE indicates a change of the activation of the DL power for a specific RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned criticality
CHOICE *Delayed Activation Update*	M				–	
>Activate						
>>CHOICE *Activation Type*	M				–	
>>>Synchronised						
>>>>Activation CFN	M		CFN 9.2.1.7		–	
>>>Unsynchronised			NULL			
>>Initial DL TX Power	M		DL Power 9.2.1.21		–	
>>First RLS Indicator	O		9.2.2.16A	FDD Only	–	
>>Propagation Delay	O		9.2.2.35	FDD Only	–	
>>Extended Propagation Delay	O		9.2.2.35A	FDD Only	YES	reject
>Deactivate						
>>CHOICE *Deactivation Type*	M				–	
>>>Synchronised						
>>>>Deactivation CFN	M		CFN 9.2.1.7		–	
>>>Unsynchronised			NULL			

9.2.1.24E Discard Timer

The *Discard Timer* IE defines the time to live for a MAC-hs SDU starting from the instant of its arrival into an HSDPA Priority Queue. The Node B shall use this information to discard out-of-data MAC-hs SDUs from the HSDPA Priority Queues.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Discard Timer			ENUMERATED (20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 300, 400, 500, 750, 1000, 1250, 1500, 1750, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 7500, …)	Unit: ms

9.2.1.25 Diversity Control Field

The Diversity Control Field indicates if the current RL may, must or must not be combined with the already existing RLs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Diversity Control Field			ENUMERATED (May, Must, Must Not, …)	

9.2.1.26 Diversity Indication

Void.

9.2.1.26A DL DPCH Timing Adjustment

Void.

9.2.1.27 DSCH ID

Void.

9.2.1.27A DSCH Information Response

Void

9.2.1.28 DSCH Transport Format Set

Void.

9.2.1.29 DSCH Transport Format Combination Set

Void.

9.2.1.29A End Of Audit Sequence Indicator

Indicates if the AUDIT RESPONSE message ends an audit sequence or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
End Of Audit Sequence Indicator			ENUMERATED (End of audit sequence, Not end of audit sequence)	"End of audit sequence" = all audit information has been provided by the Node B. "Not end of audit sequence" = more audit information is available.

9.2.1.29B FN Reporting Indicator

The Frame Number Reporting Indicator indicates if the SFN or CFN shall be included together with the reported measurement value.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FN Reporting Indicator			ENUMERATED (FN Reporting Required, FN Reporting Not Required)	

9.2.1.30 Frame Handling Priority

This parameter indicates the priority level to be used during the lifetime of the DCH [TDD - DSCH] for temporary restriction of the allocated resources due overload reason.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Frame Handling Priority			INTEGER (0..15)	"0" = lowest priority, … "15" = highest priority

9.2.1.31 Frame Offset

The Frame Offset is the required offset between the dedicated channel downlink transmission frames (CFN, Connection Frame Number) and the broadcast channel frame offset (Cell Frame Number). The Frame Offset is used in the translation between Connection Frame Number (CFN) on Iub/Iur and the least significant 8 bits of SFN (System Frame Number) on Uu. The Frame Offset is UE and cell specific.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Frame Offset			INTEGER (0..255)	Frames

9.2.1.31A IB_OC_ID

The IB OC ID identifies the occurrence of a specific Information Block.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IB OC ID			INTEGER (1..16)	

9.2.1.31B GPS Navigation Model & Time Recovery

This IE contains subframes 1 to 3 of the GPS navigation message. For further details on the meaning of parameters, see [27].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Navigation Message 1to3		*1..<maxNo Sat>*		
>Transmission TOW	M		INTEGER (0..1048575)	Time of the Week when the message is broadcast.
>SatID	M		INTEGER (0..63)	Identifies the satellite and is equal to (SV ID No - 1) where SV ID No is defined in [27].
>TLM Message	M		BIT STRING (14)	
>Tlm Revd (C)	M		BIT STRING (2)	
>HO-Word	M		BIT STRING (22)	
>WN	M		BIT STRING (10)	
>C/A or P on L2	M		BIT STRING (2)	
>User Range Accuracy Index	M		BIT STRING (4)	
>SV Health	M		BIT STRING (6)	
>IODC	M		BIT STRING (10)	
>L2 P Data Flag	M		BIT STRING (1)	
>SF 1 Reserved	M		BIT STRING (87)	
>T_{GD}	M		BIT STRING (8)	
>t_{oc}	M		BIT STRING (16)	
>af_2	M		BIT STRING (8)	
>af_1	M		BIT STRING (16)	
>af_0	M		BIT STRING (22)	
>C_{rs}	M		BIT STRING (16)	
>Δn	M		BIT STRING (16)	
>M_0	M		BIT STRING (32)	
>C_{uc}	M		BIT STRING (16)	
>e	M		BIT STRING (32)	
>C_{us}	M		BIT STRING (16)	
>$(A)^{1/2}$	M		BIT STRING (32)	
>t_{oe}	M		BIT STRING (16)	
>Fit Interval Flag	M		BIT STRING (1)	
>AODO	M		BIT STRING (5)	
>C_{ic}	M		BIT STRING (16)	
>$OMEGA_0$	M		BIT STRING (32)	
>C_{is}	M		BIT STRING (16)	
>i_0	M		BIT STRING (32)	
>C_{rc}	M		BIT STRING (16)	
>ω	M		BIT STRING (32)	
>OMEGAdot	M		BIT STRING (24)	
>Idot	M		BIT STRING (14)	
>Spare/zero fill	M		BIT STRING (20)	

Range Bound	Explanation
maxNoSat	Maximum number of satellites for which information can be provided

9.2.1.31C GPS Ionospheric Model

This IE provides the information regarding the GPS Ionospheric Model. For further details on the meaning of parameters, see [27].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
α_0	M		BIT STRING (8)	
α_1	M		BIT STRING (8)	
α_2	M		BIT STRING (8)	
α_3	M		BIT STRING (8)	
β_0	M		BIT STRING (8)	
β_1	M		BIT STRING (8)	
β_2	M		BIT STRING (8)	
β_3	M		BIT STRING (8)	

9.2.1.31D GPS UTC Model

This IE provides the information regarding the GPS UTC Model. For further details on the meaning of parameters, see [27].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
A_1	M		BIT STRING (24)	
A_0	M		BIT STRING (32)	
t_{ot}	M		BIT STRING (8)	
Δt_{LS}	M		BIT STRING (8)	
WN_t	M		BIT STRING (8)	
WN_{LSF}	M		BIT STRING (8)	
DN	M		BIT STRING (8)	
Δt_{LSF}	M		BIT STRING (8)	

9.2.1.31E GPS Real-Time Integrity

This IE provides the information regarding the status of the GPS constellation. For further details on the meaning of parameters, see [27].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Bad Satellites Presence*	M			
>Bad Satellites				
>>Satellite Information		*1..<maxNo Sat>*		
>>>BadSatID	M		INTEGER (0..63)	Identifies the satellite and is equal to (SV ID No - 1) where SV ID No is defined in [27].
>No Bad Satellites			NULL	

Range Bound	Explanation
maxNoSat	Maximum number of satellites for which information can be provided

9.2.1.31F GPS Almanac

This IE provides the information regarding the GPS Almanac. For further details on the meaning of parameters, see [27].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
WN_a	M		BIT STRING (8)	
Satellite Information	M	*1..<maxNoOfSatAlmanac>*		See Note 1.
>DataID	M		INTEGER (0..3)	
>SatID	M		INTEGER (0..63)	Identifies the satellite and is equal to (SV ID No - 1) where SV ID No is defined in [27].
>e	M		BIT STRING (16)	
>t_{oa}	M		BIT STRING (8)	
>δi	M		BIT STRING (16)	
>OMEGADOT	M		BIT STRING (16)	
>SV Health	M		BIT STRING (8)	
>$A^{1/2}$	M		BIT STRING (24)	
>$OMEGA_0$	M		BIT STRING (24)	
>M_0	M		BIT STRING (24)	
>ω	M		BIT STRING (24)	
>af_0	M		BIT STRING (11)	
>af_1	M		BIT STRING (11)	
SV Global Health	O		BIT STRING (364)	

Range Bound	Explanation
maxNoOfSatAlmanac	Maximum number of satellite almanacs for which information can be provided

Note 1: This information element is a simplified representation of the ASN.1 description. Repetitions 1 through maxNoSat and repetitions maxNoSat+1 through maxNoOfSatAlmanac are represented by separate ASN.1 structures with different criticality.

9.2.1.31G GPS Receiver Geographical Position (GPS RX Pos)

The GPS Receiver Geographical Position is used to identify the geographical coordinates of a GPS receiver relevant for a certain Information Exchange Object.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Latitude Sign	M		ENUMERATED (North, South)	
Degrees of Latitude	M		INTEGER (0..2^{23}-1)	The IE value (N) is derived by this formula: $N \leq 2^{23} X /90 < N+1$ X being the latitude in degree (0°.. 90°)
Degrees of Longitude	M		INTEGER (-2^{23}..2^{23}-1)	The IE value (N) is derived by this formula: $N \leq 2^{24} X /360 < N+1$ X being the longitude in degree (-180°..+180°)
Direction of Altitude	M		ENUMERATED (Height, Depth)	
Altitude	M		INTEGER (0..2^{15}-1)	The relation between the value (N) and the altitude (a) in meters it describes is N≤ a <N+1, except for N=2^{15}-1 for which the range is extended to include all greater values of (a).

9.2.1.31Ga HSDPA Capability

This parameter defines the HSDPA capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HSDPA Capability			ENUMERATED (HSDPA Capable, HSDPA non Capable)	

9.2.1.31H HS-DSCH Information To Modify

The *HS-DSCH Information To Modify* IE is used for modification of HS-DSCH information in a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information		*0..<maxnoofMACdFlows>*			–	
>HS-DSCH MAC-d Flow ID	M		9.2.1.31I		–	
>Allocation/Retention Priority	O		9.2.1.1A		–	
>Transport Bearer Request Indicator	M		9.2.1.62A		–	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	–	
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	–	
>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
Priority Queue Information		*0..<maxnoofPrioQueues>*			–	
>CHOICE *Priority Queue*	M				–	
>>Add Priority Queue						
>>>Priority Queue ID	M		9.2.1.49C		–	
>>>Associated HS-DSCH MAC-d Flow	M		HS-DSCH MAC-d Flow ID 9.2.1.31I	Shall only refer to an HS-DSCH MAC-d flow already existing in the old configuration. Multiple Priority Queues can be associated with the same HS-DSCH MAC-d Flow ID.	–	
>>>Scheduling Priority Indicator	M		9.2.1.53H		–	
>>>T1	M		9.2.1.56a		–	
>>>Discard Timer	O		9.2.1.24E		–	
>>>MAC-hs Window Size	M		9.2.1.38B		–	
>>>MAC-hs Guaranteed Bit Rate	O		9.2.1.38Aa		–	
>>>MAC-d PDU Size Index		*1..<maxnoofMACdPDUindexes>*			–	
>>>>SID	M		9.2.1.53I	Shall be ignored if *Maximum MAC-d PDU Size Extended* IE is present.	–	
>>>>MAC-d PDU Size	M		9.2.1.38A	Shall be ignored if *Maximum*	–	

				MAC-d PDU Size Extended IE is present.		
>>>RLC Mode	M		9.2.1.52B		–	
>>>Maximum MAC-d PDU Size Extended	O		MAC PDU Size Extended 9.2.1.38C		YES	reject
>>Modify Priority Queue						
>>>Priority Queue ID	M		9.2.1.49C	Shall only refer to a Priority Queue already existing in the old configuration.	–	
>>>Scheduling Priority Indicator	O		9.2.1.53H		–	
>>>T1	O		9.2.1.56a		–	
>>>Discard Timer	O		9.2.1.24E		–	
>>>MAC-hs Window Size	O		9.2.1.38B		–	
>>>MAC-hs Guaranteed Bit Rate	O		9.2.1.38Aa		–	
>>>MAC-d PDU Size Index		*0..<maxnoofMACdPDUindexes>*			–	
>>>>SID	M		9.2.1.53I	Shall be ignored if *Maximum MAC-d PDU Size Extended* IE is present.	–	
>>>>MAC-d PDU Size	M		9.2.1.38A	Shall be ignored if *Maximum MAC-d PDU Size Extended* IE is present.	–	
>>>Maximum MAC-d PDU Size Extended	O		MAC PDU Size Extended 9.2.1.38C		YES	reject
>>Delete Priority Queue						
>>>Priority Queue ID	M		9.2.1.49C	Shall only refer to a Priority Queue already existing in the old configuration.	–	
MAC-hs Reordering Buffer Size for RLC-UM	O		9.2.1.38Ab		–	
CQI Feedback Cycle k	O		9.2.2.21B	For FDD only	–	
CQI Repetition Factor	O		9.2.2.4Cb	For FDD only	–	
ACK-NACK Repetition Factor	O		9.2.2.a	For FDD only	–	
CQI Power Offset	O		9.2.2.4Ca	For FDD only	–	
ACK Power Offset	O		9.2.2.b	For FDD only	–	
NACK Power Offset	O		9.2.2.23a	For FDD only	–	
HS-SCCH Power Offset	O		9.2.2.18I	For FDD only	–	
Measurement Power Offset	O		9.2.2.21C	For FDD only	–	
HS-SCCH Code Change Grant	O		9.2.1.31L		–	
TDD ACK NACK Power Offset	O		9.2.3.18F	For TDD only	–	
HARQ Preamble Mode	O		9.2.2.18a	For FDD only	YES	ignore
HS-SICH SIR Target	O		UL SIR 9.2.1.67A	Applicable to 1.28Mcps TDD	YES	ignore

				only		
UE Capabilities Information		*0..1*			YES	ignore
>HS-DSCH Physical Layer Category	O		9.2.1.31Ia		–	
>1.28 Mcps TDD Uplink Physical Channel Capability	O		9.2.3.5Gc	Applicable to 1.28Mcps TDD only	YES	ignore
>Number of Supported Carriers	O		ENUMERATED (One-one carrier, One-three carrier, Three-three carrier, One-six carrier, Three-six carrier, Six-six carrier, ...)	Applicable to 1.28Mcps TDD only This IE indicates the number of carrier(s) the UE can support at the same time, where 'x-y carrier' means x for the uplink, and y for the downlink.	YES	reject
HS-SICH TPC step size	O		9.2.3.21a	Applicable to 1.28Mcps TDD only	YES	ignore
HS-PDSCH Code Change Grant	O		9.2.1.31N	For FDD only	YES	ignore
MIMO Mode Indicator	O		9.2.2.72	For FDD only	YES	reject
HS-DSCH MAC-d PDU Size Format	O		9.2.1.31ID		YES	reject
Sixtyfour QAM Usage Allowed Indicator	O		9.2.2.74A	For FDD only	YES	ignore

Range Bound	Explanation
maxnoofMACdFlows	Maximum number of HS-DSCH MAC-d flows
maxnoofPrioQueues	Maximum number of Priority Queues
maxnoofMACdPDUindexes	Maximum number of different MAC-d PDU SIDs

9.2.1.31HA HS-DSCH Information To Modify Unsynchronised

The *HS-DSCH Information To Modify Unsynchronised* IE is used for modification of HS-DSCH information in a Node B Communication Context with the Unsynchronised Radio Link Reconfiguration procedure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information		*0..<maxnoofMACdFlows>*			–	
>HS-DSCH MAC-d Flow ID	M		9.2.1.31I		–	
>Allocation/Retention Priority	O		9.2.1.1A		–	
>Transport Bearer Request Indicator	M		9.2.1.62A		–	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	–	
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	–	
>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
Priority Queue Information		*0..<maxnoofPrioQueues>*			–	
>Priority Queue ID	M		9.2.1.49C		–	
>Scheduling Priority Indicator	O		9.2.1.53H		–	
>Discard Timer	O		9.2.1.24E		–	
>MAC-hs Guaranteed Bit Rate	O		9.2.1.38Aa		–	
CQI Power Offset	O		9.2.2.4Ca	For FDD only	–	
ACK Power Offset	O		9.2.2.b	For FDD only	–	
NACK Power Offset	O		9.2.2.23a	For FDD only	–	
HS-SCCH Power Offset	O		9.2.2.18I	For FDD only	–	
TDD ACK NACK Power Offset	O		9.2.3.18F	For TDD only	–	
HARQ Preamble Mode	O		9.2.2.18a	For FDD only	YES	ignore
HS-SICH SIR Target	O		UL SIR 9.2.1.67A	Applicable to 1.28Mcps TDD only	YES	ignore
UE Capabilities Information		*0..1*			YES	ignore
>HS-DSCH Physical Layer Category	O		9.2.1.31Ia		YES	ignore
>1.28 Mcps TDD Uplink Physical Channel Capability	O		9.2.3.5Gc	Applicable to 1.28Mcps TDD only	YES	ignore
>Number of Supported Carriers	O		ENUMERATED (One-one carrier, One-three carrier, Three-three carrier, One-six carrier, Three-six carrier, Six-six carrier, ...)	Applicable to 1.28Mcps TDD only This IE indicates the number of carrier(s) the UE can support at the same time, where 'x-y carrier' means x for the uplink, and y for the downlink.	YES	reject
HS-SICH TPC step size	O		9.2.3.21a	Applicable to 1.28Mcps TDD	YES	ignore

				only		
MIMO Mode Indicator	O		9.2.2.72	For FDD only	YES	reject
Sixtyfour QAM Usage Allowed Indicator	O		9.2.2.74A	For FDD only	YES	ignore

Range Bound	Explanation
maxnoofMACdFlows	Maximum number of HS-DSCH MAC-d flows
maxnoofPrioQueues	Maximum number of Priority Queues

9.2.1.31Ha HS-DSCH Initial Capacity Allocation

The *HS-DSCH Initial Capacity Allocation* IE provides flow control information for each scheduling priority class for the HS-DSCH FP over Iub.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH Initial Capacity Allocation		*1..<maxnoofPrioQueues>*			–	
>Scheduling Priority Indicator	M		9.2.1.53H		–	
>Maximum MAC-d PDU Size	M		MAC-d PDU Size 9.2.1.38A	Shall be ignored if *Maximum MAC-d PDU Size Extended* IE is present.	–	
>HS-DSCH Initial Window Size	M		9.2.1.31Hb		–	
>Maximum MAC-d PDU Size Extended	O		MAC PDU Size Extended 9.2.1.38C		YES	ignore

Range Bound	Explanation
maxnoofPrioQueues	Maximum number of Priority Queues

9.2.1.31Hb HS-DSCH Initial Window Size

Indicates the initial number of MAC-d PDUs (or octets in case *HS-DSCH MAC-d PDU Size Format* = "Flexible MAC-d PDU Size") that may be transmitted before new credits are received from the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH Initial Window Size			INTEGER (1..255)	Number of MAC-d PDUs If *HS-DSCH MAC-d PDU Size Format* = "Flexible MAC-d PDU Size" the credit shall be determined in octets: credit (in octets) = *Maximum MAC-d PDU Size Extended * HS-DSCH Initial Window Size*

9.2.1.31I HS-DSCH MAC-d Flow ID

HS-DSCH MAC-d Flow ID is the unique identifier for one MAC-d flow.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH MAC-d Flow ID			INTEGER (0..7)	

9.2.1.31IA HS-DSCH MAC-d Flows Information

The *HS-DSCH MAC-d Flows Information* IE is used for the establishment of HS-DSCH MAC-d flows for a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information		*1..<maxnoofMACdFlows>*			–	

>HS-DSCH MAC-d Flow ID	M		9.2.1.31I		–	
>Allocation/Retention Priority	M		9.2.1.1A		–	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	–	
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	–	
>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
Priority Queue Information		*1..<maxnoofPrioQueues>*			–	
>Priority Queue ID	M		9.2.1.49C		–	
>Associated HS-DSCH MAC-d Flow	M		HS-DSCH MAC-d Flow ID 9.2.1.31I	The HS-DSCH MAC-d Flow ID shall be one of the flow IDs defined in the HS-DSCH MAC-d Flow Specific Information of this IE. Multiple Priority Queues can be associated with the same HS-DSCH MAC-d Flow ID.	–	
>Scheduling Priority Indicator	M		9.2.1.53H		–	
>T1	M		9.2.1.56a		–	
>Discard Timer	O		9.2.1.24E		–	
>MAC-hs Window Size	M		9.2.1.38B		–	
>MAC-hs Guaranteed Bit Rate	O		9.2.1.38Aa		–	
>MAC-d PDU Size Index		*1..<maxnoofMACdPDUindexes>*			–	
>>SID	M		9.2.1.53I	Shall be ignored if *Maximum MAC-d PDU Size Extended* IE is present.	–	
>>MAC-d PDU Size	M		9.2.1.38A	Shall be ignored if *Maximum MAC-d PDU Size Extended* IE is present.	–	
>RLC Mode	M		9.2.1.52B		–	
>Maximum MAC-d PDU Size Extended	O		MAC PDU Size Extended 9.2.1.38C		YES	reject

Range Bound	Explanation
maxnoofMACdFlows	Maximum number of HS-DSCH MAC-d flows
maxnoofPrioQueues	Maximum number of Priority Queues
maxnoofMACdPDUindexes	Maximum number of different MAC-d PDU SIDs

9.2.1.31IB HS-DSCH MAC-d Flows To Delete

The *HS-DSCH MAC-d Flows To Delete* IE is used for the removal of HS-DSCH MAC-d flows from a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH MAC-d Flows To Delete		*1..<maxnoofMACdFlows>*		
>HS-DSCH MAC-d Flow ID	M		9.2.1.31I	

Range Bound	Explanation
maxnoofMACdFlows	Maximum number of HS-DSCH MAC-d flows

9.2.1.31IC HS-DSCH MAC-d PDU Size Capability

This parameter defines the capability for a Local Cell to support different MAC-d PDU Size formats. If this IE is set to "Flexible Size Capable" the Local Cell is "Indexed Size Capable" and "Flexible Size Capable". If not present or set to "Indexed Size Capable" the Local Cell is only "Indexed Size Capable".

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH MAC-d PDU Size Capability			ENUMERATED (Indexed Size Capable, Flexible Size Capable)	

9.2.1.31ID HS-DSCH MAC-d PDU Size Format

The *HS-DSCH MAC-d PDU Size Format* IE provides information about the type of MAC-d PDU Size Format used for HS-DSCH. "Indexed MAC-d PDU Size" uses MAC-d PDU sizes based on *SID* IE and *MAC-d PDU Size* IE of *MAC-d PDU Size Index* IE. "Flexible MAC-d PDU Size" uses a flexible MAC-d PDU size with a maximum PDU size as defined by *Maximum MAC-d PDU Size Extended* IE of *Priority Queue Information* IE. The actual MAC-d PDU size is determined as specified in [24] and [32].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH MAC-d PDU Size Format			ENUMERATED (Indexed MAC-d PDU Size, Flexible MAC-d PDU Size)	

9.2.1.31Ia HS-DSCH Physical Layer Category

The *HS-DSCH Physical Layer Category* IE defines a set of UE radio access capabilities related to HSDPA, as defined in [33].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH Physical Layer Category			INTEGER (1..64,…)	

9.2.1.31Iaa HS-DSCH Provided Bit Rate Value

The *HS-DSCH Provided Bit Rate Value* IE indicates the HS-DSCH Provided Bit Rate as defined in [32].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH Provided Bit Rate Value			INTEGER (0..2^24-1, …)	Expressed in bit/s for FDD, 1.28Mcps TDD and 3.84Mcps TDD. For 7.68Mcps TDD the value shall be doubled to give the value in bit/s.

9.2.1.31Ib HS-DSCH Provided Bit Rate Value Information

The *HS-DSCH Provided Bit Rate Value Information* IE reports the *HS-DSCH Provided Bit Rate Value* IE for each priority class.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH Provided Bit Rate Value Information		*1..<maxNoofPriorityClasses>*		
>Scheduling Priority Indicator	M		9.2.1.53H	
>HS-DSCH Provided Bit Rate Value	M		9.2.1.31Iaa	

Range Bound	Explanation
maxNoofPriorityClasses	Maximum number of HS-DSCH Scheduling Priorities

9.2.1.31Iba HS-DSCH Required Power Value

The *HS-DSCH Required Power Value* IE indicates the minimum necessary power for a given priority class to meet the Guaranteed Bit Rate for all the established HS-DSCH connections belonging to this priority class.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH Required Power Value			INTEGER (0..1000)	Expressed in thousandths of the max transmission power

9.2.1.31Ic HS-DSCH Required Power Value Information

The *HS-DSCH Required Power Value Information* IE reports the *HS-DSCH Required Power Value* IE for each priority class. For each priority class, a list of UEs, identified by the *CRNC Communication Context* IEs, requiring a particularly high amount of power to meet the Guaranteed Bit Rate for their established HS-DSCH connections may be included. Additionally, the *HS-DSCH Required Power Per UE Weight* IE may be included for each of those UEs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH Required Power Value Information		*1..<maxNoofPriorityClasses>*		
>Scheduling Priority Indicator	M		9.2.1.53H	
>HS-DSCH Required Power Value	M		9.2.1.31Iba	
>HS-DSCH Required Power Per UE Information		*0..<maxNoofContextsonUeList>*		List of UEs with Guaranteed Bit Rate indicating their required power consumption relative to the HS-DSCH Required Power Value.
>>CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.
>>HS-DSCH Required Power Per UE Weight	O		INTEGER (0..100)	Expressed in percentage of the value provided in the *HS-DSCH Required Power Value* IE

Range Bound	Explanation
maxNoofContextsonUeList	Maximum number of Communication Contexts to include in the list of UEs
maxNoofPriorityClasses	Maximum number of HS-DSCH Scheduling Priorities

9.2.1.31J HS-DSCH RNTI

The HS-DSCH RNTI is used for the UE-specific CRC in HS-SCCH and HS-DSCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH RNTI			INTEGER (0..65535)	

9.2.1.31K HS-SCCH Code Change Indicator

The HS-SCCH Code Change Indicator indicates whether the HS-SCCH Code change is needed or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-SCCH Code Change Indicator			ENUMERATED (HS-SCCH Code Change needed)	

9.2.1.31L HS-SCCH Code Change Grant

The *HS-SCCH Code Change Grant* IE indicates that modification of HS-SCCH Codes is granted.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-SCCH Code Change Grant			ENUMERATED (Change Granted)	

9.2.1.31M HS-PDSCH Code Change Indicator [FDD]

The HS-PDSCH Code Change Indicator indicates whether the HS-PDSCH Code change is needed or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-PDSCH Code Change Indicator			ENUMERATED (HS-PDSCH Code Change needed)	

9.2.1.31N HS-PDSCH Code Change Grant [FDD]

The *HS-PDSCH Code Change Grant* IE indicates that modification of HS-PDSCH Codes is granted.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-PDSCH Code Change Grant			ENUMERATED (Change Granted)	

9.2.1.32 IB_SG_DATA

Segment as defined in ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IB_SG_DATA			BIT STRING	Contains "SIB data fixed" or "SIB data variable" in segment as encoded in ref. [18]. See Annex D

9.2.1.33 IB_SG_POS

The lowest position of a specific Information Block segment in the SFN cycle (IB_SG_POS < IB_SG_REP).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IB_SG_POS			INTEGER (0..4094)	Only even positions are allowed. See ref. [18]

9.2.1.34 IB_SG_REP

Repetition distance for an Information Block segment. The segment shall be transmitted when SFN mod IB_SG_REP = IB_SG_POS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IB_SG_REP			ENUMERATED (4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096)	Repetition period for the IB segment in frames

9.2.1.35 IB Type

The IB Type identifies a specific system information block.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IB Type			ENUMERATED (MIB, SB1, SB2, SIB1, SIB2, SIB3, SIB4, SIB5, SIB6, SIB7, not-Used-SIB8, not-Used-SIB9, not-Used-SIB10, SIB11, SIB12, SIB13, SIB13.1, SIB13.2, SIB13.3, SIB13.4, SIB14, SIB15, SIB15.1, SIB15.2, SIB15.3, SIB16, …, SIB17, SIB15.4, SIB18, SIB15.5, SIB5bis, SIB11bis, SIB15bis, SIB15.1bis, SIB15.2bis, SIB15.3bis, 15.6, 15.7, 15.8)	

9.2.1.36 Indication Type

Void.

9.2.1.36A Information Exchange Object Type

Void.

9.2.1.36B Information Report Characteristics

The information report characteristics defines how the reporting shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Information Report Characteristics Type*	M			
>On Demand			NULL	
>Periodic				
>>CHOICE *Information Report Periodicity Scale*	M			The frequency with which the Node B shall send information reports.
>>>minute				
>>>>Report Periodicity Value	M		INTEGER (1..60,…)	Unit: min
>>>hour				
>>>>Report Periodicity Value	M		INTEGER (1..24,…)	Unit: h
>On Modification				
>>Information Threshold	O		9.2.1.36E	

9.2.1.36C Information Exchange ID

The Information Exchange ID uniquely identifies any requested information per Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Information Exchange ID	M		INTEGER (0..2^20-1)	

9.2.1.36D Information Type

The Information Type indicates which kind of information the Node B shall provide.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Information Type Item	M		ENUMERATED (GPS Information, DGPS Corrections, GPS RX Pos, …, GANSS Information, DGANSS Corrections, GANSS RX Pos)		–	
GPS Information	C-GPS	*0..<maxNo GPSItems>*			–	
>GPS Information Item			ENUMERATED (GPS Navigation Model & Time Recovery, GPS Ionospheric Model, GPS UTC Model, GPS Almanac, GPS Real-Time Integrity, …)		–	
GANSS Information	C-*GANSS*	*1*			YES	ignore
>**GANSS Common Data**		*0..1*			–	
>>Ionospheric Model	O		BOOLEAN	True means requested	–	
>**GANSS Generic Data**		*0..<maxNo GANSS>*			–	
>>GANSS ID	O		9.2.1.104		–	
>>GANSS Navigation Model And Time Recovery	O		BOOLEAN	True means requested	–	
>>GANSS Time Model GNSS-GNSS	O		BIT STRING(9)	Defines the time model required. Bit 1 is the MSB and bit 9 is the LSB (see section 9.2.0). Bit 1:GPS, Bit 2:Galileo Other bits are reserved.	–	
>>GANSS UTC Model	O		BOOLEAN	True means requested	–	
>>GANSS Almanac	O		BOOLEAN	True means requested	–	
>>GANSS Real Time Integrity	O		BOOLEAN	True means requested	–	
>>GANSS Data Bit Assistance		*0..1*			–	
>>>GANSS TOD	M		INTEGER (0..86399)	The GANSS Time Of Day for	–	

				which the data bits are requested		
>>>Data Bit Assistance		*1..<maxSgn Type>*			–	
>>>>GANSS data bit assistance	M		BOOLEAN	True means requested	–	

Condition	Explanation
GPS	The IE shall be present if the *Information Type Item* IE indicates "GPS Information".
GANSS	The IE shall be present if the *Information Type Item* IE indicates "GANSS Information".

Range Bound	Explanation
maxNoGPSItems	Maximum number of GPS Information Items supported in one Information Exchange
maxNoGANSS	Maximum number of GANSS Systems
maxSgnType	Maximum number of GANSS signals included in the IE

9.2.1.36E Information Threshold

The Information Threshold indicates which kind of information shall trigger the Information Reporting procedure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Information Type Item*	M			
>DGPS				
>>PRC Deviation	M		ENUMERATED (1, 2, 5, 10, …)	PRC deviation in meters from the previously reported value, which shall trigger a report
>DGANSS				
>>PRC Deviation	M		ENUMERATED (1, 2, 5, 10, …)	PRC deviation in meters from the previously reported value, which shall trigger a report

9.2.1.36F IPDL Indicator

Indicates if IPDL periods shall be active or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IPDL Indicator			ENUMERATED (active, inactive)	

9.2.1.37 Limited Power Increase

Void.

9.2.1.37A Local Cell Group ID

The Local Cell Group ID represents resources in the Node B, which have been pooled from a capacity point of view.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Local Cell Group ID			Local Cell ID 9.2.1.38	

9.2.1.38 Local Cell ID

The local cell ID represents resources in the Node B that can be used for the configuration of a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Local Cell ID			INTEGER (0…268435455)	

9.2.1.38A MAC-d PDU Size

The *MAC-d PDU Size* provides the size in bits of the MAC-d PDU.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-d PDU Size			INTEGER (1..5000,…)	In case of E-DCH, value 8 and values not multiple of 8 shall not be used.

9.2.1.38Aa MAC-hs Guaranteed Bit Rate

The *MAC-hs Guaranteed Bit Rate* IE indicates the guaranteed number of bits per second that Node B should deliver over the air interface under normal operating conditions (provided there is data to deliver). If the *MAC-hs Guaranteed Bit Rate* IE is received with the value set to 0 during RL set up or modification, no guarantee is applied.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-hs Guaranteed Bit Rate			INTEGER (0..2^24-1, …, 2^24..256,000,000)	Unit: bit/s

9.2.1.38Ab MAC-hs Reordering Buffer Size for RLC-UM

The *MAC-hs Reordering Buffer Size for RLC-UM* IE indicates the portion of the buffer in the UE that can be used for RLC-UM traffic (i.e. for Priority Queues whose *RLC Mode* IE is set to "RLC-UM").

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-hs Reordering Buffer Size			INTEGER (0..300,…)	Unit: kBytes And N kBytes = N*1024 Bytes. The Node B shall use this value to avoid the overflow of the MAC-hs reordering buffer.

9.2.1.38Ac MAC-hs Reset Indicator

The *MAC-hs Reset Indicator* IE indicates that a reset of the MAC-hs is not required.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-hs Reset Indicator			ENUMERATED (MAC-hs Not Reset)	

9.2.1.38B MAC-hs Window Size

The *MAC-hs Window Size* IE is used for MAC-hs PDU retransmission as defined in [32].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-hs Window Size			ENUMERATED (4, 6, 8, 12, 16, 24, 32,…)	For 1.28Mcps TDD when TSN length is configured to 9bits, ENUMERATED (32, 64, 96, 128, 160, 192, 256,…)

9.2.1.38C MAC PDU Size Extended

The *MAC PDU Size Extended* IE provides the size in octets of the MAC level PDU when an extended MAC level PDU size is required.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC PDU Size Extended			INTEGER (1..1504,…)	

9.2.1.39 Maximum DL Power Capability

This parameter indicates the maximum DL power capability for a local cell or a Power Local Cell Group within the Node B. The reference point is the antenna connector. If Transmit Diversity can be used in the local cell, the parameter indicates the maximum for the linear sum of the power that can be used on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum DL Power Capability			INTEGER (0..500)	Unit: dBm Range: 0..50 dBm Step: 0.1 dB

9.2.1.40 Maximum Transmission Power

The Maximum Transmission Power is the maximum value for the linear sum of the power of all downlink physical channels, that is allowed to be used in a cell. If Transmit Diversity is applied to one downlink physical channel, the power to be considered for this downlink physical channel is the linear sum of the power used for this downlink physical channel on all branches. [1.28Mcps TDD - For a multi-frequency cell, the Maximum Transmission Power is the maximum value for the linear sum of the power of all downlink physical channels, that is allowed to be used on one frequency in a cell.] The reference point is the antenna connector.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Transmission Power			INTEGER (0..500)	Unit: dBm Range: 0..50 Step: 0.1 dB

9.2.1.40A Measurement Availability Indicator

Void.

9.2.1.40B Measurement Change Time

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Time Scale*	M			
>millisecond				
>>Measurement Change Time Value	M		INTEGER (1..6000,…)	Unit: ms Range: 10..60000 ms Step: 10 ms

9.2.1.41 Measurement Filter Coefficient

The Measurement Filter Coefficient determines the amount of filtering to be applied for measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Filter Coefficient			ENUMERATED (0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 15, 17, 19,...)	

9.2.1.41A Measurement Hysteresis Time

The Measurement Hysteresis Time provides the duration during which a reporting criterion has to be fulfilled for the Measurement Reporting procedure to be triggered.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Time Scale*	M			
>millisecond				
>>Measurement Hysteresis Time Value	M		INTEGER (1..6000,…)	Unit: ms Range: 10..60000 ms Step: 10 ms

9.2.1.42 Measurement ID

The Measurement ID uniquely identifies any measurement per (Node B or Communication) Control Port.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement ID			INTEGER (0..2^20-1)	

9.2.1.43 Measurement Increase/Decrease Threshold

The Measurement Increase/Decrease Threshold defines the threshold that shall trigger Event C or D.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE *Measurement Increase/Decrease Threshold*	M				–	
>Received Total Wide Band Power						
>>Received Total Wide Band Power	M		INTEGER (0..620)	Unit: dB Range: 0..62 dB Step: 0.1 dB	–	
>Transmitted Carrier Power						
>>Transmitted Carrier Power	M		INTEGER (0..100)	According to mapping in [22] and [23]	–	
>Acknowledged PRACH Preambles				FDD only		
>>Acknowledged PRACH Preambles	M		INTEGER (0..240,…)	According to mapping in [22]	–	
>UL Timeslot ISCP				TDD only		
>>UL Timeslot ISCP	M		INTEGER (0..126)	Unit: dB Range: 0..63 dB Step: 0.5 dB	–	
>SIR						
>>SIR	M		INTEGER (0..62)	Unit: dB Range: 0..31 dB Step: 0.5 dB	–	
>SIR Error				FDD only		
>>SIR Error	M		INTEGER (0..124)	Unit: dB Range: 0..62 dB Step: 0.5 dB	–	
>Transmitted Code Power						
>>Transmitted Code Power	M		INTEGER (0..112,…)	Unit: dB Range: 0..56 dB Step: 0.5 dB	–	
>RSCP				TDD only		
>>RSCP	M		INTEGER (0..126)	Unit: dB Range: 0..63 dB Step: 0.5 dB	–	
>Round Trip Time				FDD only		
>>Round Trip Time	M		INTEGER (0..32766)	Unit: chips Range: 0 .. 2047.875 chips Step: 0.625 chips	–	
>Not Used 1			NULL	This choice shall not be used. Reject procedure if received.		
>Not Used 2			NULL	This choice shall not be used. Reject procedure if received.		
>Additional Measurement Thresholds				See Note 1.		
>>Transmitted Carrier Power Of All Codes Not Used For HSTransmission						
>>>Transmitted Carrier Power Of All Codes Not Used For HSTransmission	M		INTEGER (0..100)	According to mapping in [22], measurement "Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICHTransmission"	YES	reject

				and mapping in [23], measurement "Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH Or HS-SCCH Transmission"		
>>Transmitted Carrier Power For Cell Portion				FDD only		
>>>Transmitted Carrier Power For Cell Portion	M		INTEGER (0..100)	Mapping identical to the one for Transmitted Carrier Power measurement in [22]	YES	reject
>>Received Total Wide Band Power For Cell Portion				FDD only		
>>>Received Total Wide Band Power For Cell Portion	M		INTEGER (0..620)	Unit: dB Range: 0..62 dB Step: 0.1 dB	YES	reject
>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission For Cell Portion				FDD only		
>>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission For Cell Portion	M		INTEGER (0..100)	Mapping identical to the one for Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission measurement in [22]	YES	reject
>>UpPCH interference				1.28Mcps TDD Only		
>>>UpPCH interference Value	M		INTEGER (0..127,...)	According to mapping in [23]	YES	reject
>>Received Scheduled E-DCH Power Share				FDD only		
>>>RSEPS value	M		INTEGER (0..151)	According to mapping in [22]	YES	reject
>>Received Scheduled E-DCH Power Share For Cell Portion				FDD only		
>>>RSEPS value	M		INTEGER (0..151)	According to mapping in [22]	YES	reject

Note 1: This information element is a simplified representation of the ASN.1. The choice is performed through the use of a ProtocolIE-Single-Container and a ProtocolExtensionContainer within the ASN.1.

9.2.1.43A Measurement Recovery Behavior

This IE controls the Measurement Recovery Behavior.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Recovery Behavior			NULL	

9.2.1.43B Measurement Recovery Reporting Indicator

This IE indicates the Measurement Recovery Reporting.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Recovery Reporting Indicator			NULL	

9.2.1.43C Measurement Recovery Support Indicator

This IE indicates the Measurement Recovery Support.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Recovery Support Indicator			NULL	

9.2.1.44 Measurement Threshold

The Measurement Threshold defines which threshold that shall trigger Event A, B, E, F or On Modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE *Measurement Threshold*	M				–	
>Received Total Wide Band Power						
>>Received Total Wide Band Power	M		INTEGER (0..621)	According to mapping in [22] and [23]	–	
>Transmitted Carrier Power						
>>Transmitted Carrier Power	M		INTEGER (0..100)	According to mapping in [22] and [23]	–	
>Acknowledged PRACH Preambles				FDD only		
>>Acknowledged PRACH Preambles	M		INTEGER (0..240,…)	According to mapping in [22]	–	
>UL Timeslot ISCP				TDD only		
>>UL Timeslot ISCP	M		INTEGER (0..127)	According to mapping in [23]	–	
>SIR						
>>SIR	M		INTEGER (0..63)	According to mapping in [22] and [23]	–	
>SIR Error				FDD only		
>>SIR Error	M		INTEGER (0..125)	According to mapping in [22]	–	
>Transmitted Code Power						
>>Transmitted Code Power	M		INTEGER (0..127)	According to mapping in [22] and [23]	–	
>RSCP				TDD only		
>>RSCP	M		INTEGER (0..127)	According to mapping in [23]	–	
>Rx Timing Deviation				Applicable to 3.84Mcps TDD only		
>>Rx Timing Deviation	M		INTEGER (0..8191)	According to mapping in [23]	–	
>Round Trip Time				FDD only		
>>Round Trip Time	M		INTEGER (0..32767)	According to mapping in [22]	–	
>Not Used 1			NULL	This choice shall not be used. Reject procedure if received.		
>Not Used 2			NULL	This choice shall not be used. Reject procedure if received.		
>Additional Measurement Thresholds				See Note 1.		
>>UTRAN GPS Timing Of Cell Frames For UE Positioning					–	
>>>$T_{UTRAN-GPS}$ Measurement Threshold Information	M		9.2.1.64B		YES	reject
>>SFN-SFN Observed Time Difference						
>>>SFN-SFN Measurement Threshold Information	M		9.2.1.53C		YES	reject
>>Rx Timing Deviation LCR				Applicable to 1.28Mcps TDD Only		
>>>Rx Timing Deviation LCR	M		INTEGER (0..511)	According to mapping in [23]	YES	reject

>>HS-SICH Reception Quality				Applicable to TDD Only		
>>>HS-SICH Reception Quality	M		INTEGER (0..20)	According to mapping in [23]	YES	reject
>>Transmitted Carrier Power Of All Codes Not Used For HSTransmission						
>>>Transmitted Carrier Power Of All Codes Not Used For HSTransmission	M		INTEGER (0..100)	According to mapping in [22], measurement "Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICHTransmission" and [23], measurement "Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH Or HS-SCCH Transmission"	YES	reject
>>HS-DSCH Required Power						
>>>HS-DSCH Required Power Value	M		9.2.1.31Iba		YES	reject
>>Transmitted Carrier Power For Cell Portion				FDD only		
>>>Transmitted Carrier Power For Cell Portion	M		INTEGER (0..100)	Mapping identical to the one for Transmitted Carrier Power measurement in [22]	YES	reject
>>Received Total Wide Band Power For Cell Portion				FDD only		
>>>Received Total Wide Band Power For Cell Portion	M		INTEGER (0..621)	Mapping identical to the one for Received Total Wide Band Power measurement in [22]	YES	reject
>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission For Cell Portion				FDD only		
>>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission Value For Cell Portion	M		INTEGER (0..100)	Mapping identical to the one for Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission measurement in [22]	YES	reject
>>UpPCH interference				1.28Mcps TDD Only		
>>>UpPCH	M		INTEGER	According to mapping	YES	reject

interference Value			(0..127,…)	in [23]		
>>DL Transmission Branch Load				FDD Only		
>>>DL Transmission Branch Load Value	M		INTEGER (0..101,…)	According to mapping in [22]	YES	reject
>>HS-DSCH Required Power For Cell Portion				FDD only		
>>>HS-DSCH Required Power Value For Cell Portion	M		HS-DSCH Required Power Value 9.2.1.31Iba		YES	reject
>>E-DCH Non-serving Relative Grant Down Commands				FDD only		
>>>E-DCH Non-serving Relative Grant Down Commands Value	M		INTEGER (0..100,…)	Down Commands per second	YES	reject
>>Rx Timing Deviation 768				Applicable to 7.68Mcps TDD Only		
>>>Rx Timing Deviation 768	M		INTEGER (0..65535)	According to mapping in [23]	YES	reject
>>Rx Timing Deviation 384 Extended				Applicable to 3.84Mcps TDD Only		
>>>Rx Timing Deviation 384 Extended	M		INTEGER (0..32767)	According to mapping in [23]	YES	reject
>>Extended Round Trip Time				FDD only		
>>>Extended Round Trip Time Value	M		INTEGER (32767..103041)	Continuation of intervals with step size as defined in [22].	YES	reject
>>Received Scheduled E-DCH Power Share				FDD only		
>>>RSEPS value	M		INTEGER (0..151)	According to mapping in [22]	YES	reject
>>Received Scheduled E-DCH Power Share for Cell Portion				FDD only		
>>>RSEPS value	M		INTEGER (0..151)	According to mapping in [22]	YES	reject
>>Additional HS-SICH Reception Quality				Applicable to 1.28Mcps TDD Only		
>>>HS-SICH Reception Quality LCR	M		INTEGER (0..20)	According to mapping in [23] used when the Measurement Threshold Value for HS-SICH Reception Quality are more than 20, Measurement Threshold Value = 20 + IE Value	YES	reject
>>UTRAN GANSS Timing Of Cell Frames For UE Positioning						

>>>$T_{UTRAN-GANSS}$ Measurement Threshold Information	M		9.2.1.99		YES	reject

Note 1: This information element is a simplified representation of the ASN.1. The choice is performed through the use of a ProtocolIE-Single-Container and a ProtocolExtensionContainer within the ASN.1.

9.2.1.45 Message Discriminator

This field is used to discriminate between Dedicated NBAP and Common NBAP messages.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Message Discriminator			ENUMERATED (Common, Dedicated)	

9.2.1.45A Message Structure

The *Message Structure* IE gives information for each level with assigned criticality in an hierarchical message structure from top level down to the lowest level above the reported level for the occurred error (reported in the *Information Element Criticality Diagnostics* IE).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Message Structure		*1..<maxnooflevels>*		The first repetition of the *Message Structure* IE corresponds to the top level of the message. The last repetition of the *Message Structure* IE corresponds to the level above the reported level for the occurred error of the message.
>IE ID	M		INTEGER (0..65535)	The IE ID of this level"s IE containing the not understood or missing IE.
>Repetition Number	O		INTEGER (1..256)	The *Repetition Number* IE gives, if applicable, the number of occurrences of this level"s reported IE up to and including the occurrence containing the not understood or missing IE. Note: All the counted occurrences of the reported IE must have the same topdown hierarchical message structure of IEs with assigned criticality above them.

Range Bound	Explanation
maxnooflevels	Maximum number of message levels to report. The value for maxnooflevels is 256.

9.2.1.46 Message Type

The Message Type uniquely identifies the message being sent.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Procedure ID	M	*1*		
>Procedure Code	M		INTEGER (0..255)	"0" = Audit "1" = Audit Required "2" = Block Resource "3" = Cell Deletion "4" = Cell Reconfiguration "5" = Cell Setup "6" = Common Measurement Failure "7" = Common Measurement Initiation "8" = Common Measurement Report "9" = Common Measurement Termination "10" = Common Transport Channel Delete "11" = Common Transport Channel Reconfigure "12" = Common Transport Channel Setup "13" = Reset "14" = Compressed Mode Command "16" = Dedicated Measurement Failure "17" = Dedicated Measurement Initiation "18" = Dedicated Measurement Report "19" = Dedicated Measurement Termination "20" = Downlink Power Control "21" = Error Indication (For Dedicated Procedures) "23" = Radio Link Addition "24" = Radio Link Deletion "25" = Radio Link Failure "26" = Radio Link Restoration "27" = Radio Link Setup "28" = Resource Status Indication "29" = Synchronised Radio Link Reconfiguration Cancellation "30" = Synchronised Radio Link Reconfiguration Commit "31" = Synchronised Radio Link Reconfiguration Preparation "32" = System Information Update "33" = Unblock Resource "34" = Unsynchronised Radio Link Reconfiguration "35" = Error Indication (For Common Procedures) "37" = Physical Shared Channel Reconfiguration "38" = Downlink Power Timeslot Control "39" = Radio Link Preemption "40" = Information Exchange Failure "41" = Information Exchange Initiation "42" = Information Exchange Termination "43" = Information Reporting "44" = Cell Synchronisation Adjustment "45" = Cell Synchronisation Initiation "46" = Cell Synchronisation Reconfiguration "47" = Cell Synchronisation Reporting "48" = Cell Synchronisation Termination "49" = Cell Synchronisation Failure "50" = Bearer Rearrangement "51" = Radio Link Activation '52' = Radio Link Parameter Update "53" = MBMS Notification Update
>Ddmode	M		ENUMERATED (TDD, FDD, Common, …)	Common = common to FDD and TDD.
Type of Message	M		ENUMERATED (	

			Initiating Message, Successful Outcome, Unsuccessful Outcome, Outcome)	

9.2.1.46a MICH CFN

The MICH CFN indicates the Connection Frame Number for the MICH. It corresponds to the Cell SFN of the frame in which the start of the S-CCPCH frame is located, see ref [7].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MICH CFN			INTEGER (0..4095)	

9.2.1.46A Minimum DL Power Capability

This parameter indicates the minimum DL power capability for a local cell within the Node B. The reference point is the antenna connector. If Transmit Diversity can be used in the local cell, the parameter indicates the minimum for the linear sum of the power that can be used on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Minimum DL Power Capability			INTEGER (0..800)	Unit: dBm Range: -30 .. +50 dBm Step: 0.1 dB

9.2.1.47 Minimum Spreading Factor

This parameter indicates the minimum spreading factor supported at a cell within the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Minimum Spreading Factor			ENUMERATED (4, 8, 16, 32, 64, 128, 256, 512)	[TDD - Mapping scheme for the minimum spreading factor 1 and 2: '256' means 1 '512' means 2]

9.2.1.47a Modification Period

The Modification Period of the MICH, see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Modification Period			ENUMERATED (1280, 2560, 5120, 10240,…)	Unit: ms

9.2.1.47A N_INSYNC_IND

This parameter is used by the Node B for achievement/re-achievement of UL synchronisation on the Uu interface as defined in ref. [10] and [21].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
N_INSYNC_IND			INTEGER (1..256)	

9.2.1.47B N_OUTSYNC_IND

This parameter defines the number of consecutive out-of-sync indications after which the timer T_RLFAILURE shall be started (see also ref. [10] and [21]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
N_OUTSYNC_IND			INTEGER (1..256)	

9.2.1.47C Neighbouring FDD Cell Measurement Information

This IE provides information on the FDD neighbouring cells used for the purpose of measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UC-Id	M		9.2.1.65B	
UARFCN	M		9.2.1.65	Corresponds to Nd [14]
Primary Scrambling Code	M		9.2.2.34	

9.2.1.47D Neighbouring TDD Cell Measurement Information

This IE provides information on the 3.84Mcps TDD neighbouring cells used for the purpose of measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time Slot* IE and *Midamble Shift And Burst Type* IE shall be included if available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UC-Id	M		9.2.1.65B	
UARFCN	M		9.2.1.65	Corresponds to Nt [15]
Cell Parameter ID	M		9.2.3.4	
Time Slot	O		9.2.3.23	
Midamble Shift And Burst Type	O		9.2.3.7	

9.2.1.47E Neighbouring TDD Cell Measurement Information LCR

This IE provides information on the neighbouring 1.28Mcps TDD cells used for the purpose of measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time Slot LCR* IE and *Midamble Shift LCR* IE shall be included if available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UC-Id	M		9.2.1.65B	
UARFCN	M		9.2.1.65	Corresponds to Nt [15]
Cell Parameter ID	M		9.2.3.4	
Time Slot LCR	O		9.2.3.24A	
Midamble Shift LCR	O		9.2.3.7A	

9.2.1.47F NI

The *NI* IE provides a Notification Indicator determined as specified in [37].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
NI			INTEGER (0..65535)	

9.2.1.48 Node B Communication Context ID

The Node B Communication Context ID is the identifier of the Communication Context in the Node B, it corresponds to the dedicated resources which are necessary for an UE using one or more dedicated channels in a given Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Node B Communication Context ID			INTEGER (0..2^20-1)	"2^20-1" is a reserved value indicating all the existing and future Node B Communication Contexts that can be reached by the Communication Control Port (All NBCC).

9.2.1.49 Payload CRC Presence Indicator

This parameter indicates whether FP payload 16 bit CRC is used or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Payload CRC Presence Indicator			ENUMERATED (CRC Included, CRC Not Included, …)	

9.2.1.49A PICH Power

The *PICH Power* IE indicates a power level relative to the [FDD - Primary CPICH power] [TDD - Primary CCPCH power] configured in a cell. If Transmit Diversity is applied to the PICH (resp. the MICH), the *PICH Power* IE indicates the power offset between the linear sum of the power for the PICH (resp. the MICH) on all branches and the [FDD - Primary CPICH power] [TDD - Primary CCPCH power] configured in a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PICH Power			INTEGER (-10..+5)	Unit: dB Range: -10 .. +5 dB Step: 1dB

9.2.1.49B Power Local Cell Group ID

The Power Local Cell Group ID represents resources in the Node B which have been pooled from a DL power capability point of view.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power Local Cell Group ID			Local Cell ID 9.2.1.38	

9.2.1.49C Priority Queue ID

The Priority Queue ID provides the identity of the Priority Queue. The Priority Queue ID is unique across all MAC-d flows that are currently allocated for one Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Priority Queue ID			INTEGER (0..7)	

9.2.1.49D Process Memory Size

The *Process Memory Size* IE is the size of an HARQ process in the Node B expressed in bits. It provides the maximum number of soft channel bits in the virtual IR buffer [8] or [34].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Process Memory Size			ENUMERATED (800, 1600, 2400, 3200, 4000, 4800, 5600, 6400, 7200, 8000, 8800, 9600, 10400, 11200, 12000, 12800, 13600, 14400, 15200, 16000, 17600, 19200, 20800, 22400, 24000, 25600, 27200, 28800, 30400, 32000, 36000, 40000, 44000, 48000, 52000, 56000, 60000, 64000, 68000, 72000, 76000, 80000, 88000, 96000, 104000, 112000, 120000, 128000, 136000, 144000, 152000, 160000, 176000, 192000, 208000, 224000, 240000, 256000, 272000, 288000, 304000,…)	

9.2.1.50 Puncture Limit

The Puncture Limit limits the amount of puncturing that can be applied in order to minimise the number of dedicated physical channels.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Puncture Limit			INTEGER (0..15)	Unit: % Range: 40..100 % Step: 4 % 100% means no puncturing [FDD - Value "0" is not applicable for E-DPCH.]

9.2.1.50A QE-Selector

The QE-Selector indicates from which source the value for the quality estimate (QE) shall be taken.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
QE-Selector			ENUMERATED (Selected, Non-Selected)	

9.2.1.51 Report Characteristics

The report characteristics define how the reporting shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE *Report Characteristics*	M				–	
>On Demand			NULL			
>Periodic						
>>Report Periodicity	M		9.2.1.51a	The frequency with which the Node B shall send measurement reports.	–	
>Event A						
>>Measurement Threshold	M		9.2.1.44	The threshold for which the Node B shall trigger a measurement report.	–	
>>Measurement Hysteresis Time	O		9.2.1.41A		–	
>Event B						
>>Measurement Threshold	M		9.2.1.44	The threshold for which the Node B shall trigger a measurement report.	–	
>>Measurement Hysteresis Time	O		9.2.1.41A		–	
>Event C						
>>Measurement Increase/Decrease Threshold	M		9.2.1.43		–	
>>Measurement Change Time	M		9.2.1.40B	The time the measurement entity shall rise on (in ms), in order to trigger a measurement report.	–	
>Event D						
>>Measurement Increase/Decrease Threshold	M		9.2.1.43		–	
>>Measurement Change Time	M		9.2.1.40B	The time the measurement entity shall fall (in ms), in order to trigger a measurement report.	–	
>Event E						
>>Measurement Threshold 1	M		Measurement Threshold 9.2.1.44		–	
>>Measurement Threshold 2	O		Measurement Threshold 9.2.1.44		–	
>>Measurement Hysteresis Time	O		9.2.1.41A		–	
>>Report Periodicity	O		9.2.1.51a	The frequency with which the Node B shall send measurement reports.	–	
>Event F						
>>Measurement Threshold 1	M		Measurement Threshold 9.2.1.44		–	
>>Measurement Threshold 2	O		Measurement Threshold 9.2.1.44		–	
>>Measurement Hysteresis Time	O		9.2.1.41A		–	
>>Report Periodicity	O		9.2.1.51a	The frequency with which the Node B shall send	–	

				measurement reports.		
>Additional Report Characteristics				See Note 1		
>>On Modification						
>>>On Modification		*1*			YES	reject
>>>>Measurement Threshold	M		9.2.1.44		–	

Note 1: This information element is a simplified representation of the ASN.1. The choice is performed through the use of a ProtocolIE-Single-Container and a ProtocolExtensionContainer within the ASN.1.

9.2.1.51a Report Periodicity

The Report Periodicity defines the frequency at which the Node B shall send measurement reports.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Report Periodicity Scale*	M			
>millisecond				
>>Report Periodicity Value	M		INTEGER (1..6000,…)	Unit: ms Range: 10..60000 ms Step: 10 ms
>minute				
>>Report Periodicity Value	M		INTEGER (1..60,…)	Unit: min Range: 1..60 min Step: 1 min

9.2.1.51A Requested Data Value

The *Requested Data Value* IE contains the relevant data concerning the ongoing information exchange. The *Requested Data Value* IE shall include at least one of the following IE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DGPS Corrections	O		9.2.1.24B		–	
GPS Navigation Model & Time Recovery	O		9.2.1.31B		–	
GPS Ionospheric Model	O		9.2.1.31C		–	
GPS UTC Model	O		9.2.1.31D		–	
GPS Almanac	O		9.2.1.31F		–	
GPS Real-Time Integrity	O		9.2.1.31E		–	
GPS RX Pos	O		9.2.1.31G		–	
GANSS Common Data		*0..1*			YES	ignore
>GANSS Ionospheric Model	O		9.2.1.91		–	
>GANSS RX Pos	O		9.2.1.95		–	
GANSS Generic Data		*0..<maxNoGANSS>*			GLOBAL	ignore
>GANSS ID	O		9.2.1.104		–	
>DGANSS Corrections	O		9.2.1.88		–	
>GANSS Navigation Model And Time Recovery	O		9.2.1.105		–	
>GANSS Time Model	O		9.2.1.96		–	
>GANSS UTC Model	O		9.2.1.97		–	
>GANSS Almanac	O		9.2.1.89		–	
>GANSS Real Time Integrity	O		9.2.1.94		–	
>GANSS Data Bit Assistance	O		9.2.1.103		–	

Range Bound	Explanation
maxNoGANSS	Maximum number of GANSS Systems

9.2.1.51B Requested Data Value Information

The *Requested Data Value Information* IE provides information on whether or not the Requested Data Value is available in the message and also the Requested Data Value itself if available. In case of "Periodic" and "On Modification" reporting, "Information Not Available" shall be used when at least one part of the requested information was not available at the moment of initiating the Information Reporting procedure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Information Availability Indicator*	M			
>Information Available				
>>Requested Data Value	M		9.2.1.51A	
>Information Not Available			NULL	

9.2.1.52 Resource Operational State

The Resource Operational State is used to indicate the current operational state of the associated resource following a Node B failure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Resource Operational State			ENUMERATED (Enabled, Disabled)	When a resource is marked as disabled, then its child resources are implicitly disabled. Cell Resource hierarchy can be referred to [6].

9.2.1.52A Retention Priority

Void.

9.2.1.52B RLC Mode

The *RLC Mode* IE indicates the RLC Mode used for a Priority Queue.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RLC Mode			ENUMERATED (RLC-AM, RLC-UM,…)	

9.2.1.53 RL ID

The RL ID is the unique identifier for one RL associated with a UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RL ID			INTEGER (0..31)	

9.2.1.53a RNC-Id

This is the identifier of one RNC in UTRAN.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RNC-Id			INTEGER (0..4095)	

9.2.1.53b RTWP* Reporting Indicator

The RTWP* Reporting Indicator indicates if the RTWP* measurement value shall be included together with the reported RSEPS measurement value.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RTWP* Indicator			ENUMERATED (RTWP* Reporting Required)	

9.2.1.53c RTWP* for Cell Portion Reporting Indicator

The RTWP* for Cell Portion Reporting Indicator indicates if the RTWP* for Cell Portion measurement value shall be included together with the reported RSEPS measurement value.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RTWP* per Cell Portion Indicator			ENUMERATED (RTWP* for Cell Portion Reporting Required)	

9.2.1.53A SFN

System Frame Number of the cell, see ref. [17].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SFN			INTEGER (0..4095)	

9.2.1.53B Segment Type

Segment type as defined in [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Segment Type			ENUMERATED (First segment, First segment short, Subsequent segment, Last segment, Last segment short, Complete SIB, Complete SIB short, …)	

9.2.1.53C SFN-SFN Measurement Threshold Information

The SFN-SFN Measurement Threshold Information defines the related thresholds SFN-SFN Observed Time Difference measurements which shall trigger the Event On Modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SFN-SFN Change Limit	O		INTEGER(1..256)	Change of SFN-SFN value compared to previously reported value, which shall trigger a new report. Unit: chip Step: 1/16 chip
Predicted SFN-SFN Deviation Limit	O		INTEGER(1..256)	Deviation of the predicated SFN-SFN from the latest measurement result, which shall trigger a new report. Unit: chip Step: 1/16 chip

9.2.1.53D SFN-SFN Measurement Time Stamp

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Mode*	M			
>*FDD*				
>>SFN	M		9.2.1.53A	Indicates the SFN of the reference cell at which the measurement has been performed.
>*TDD*				
>>SFN	M		9.2.1.53A	Indicates the SFN of the reference cell at which the measurement has been performed.
>>Time Slot	M		9.2.3.23	Indicates the Time Slot of the reference cell at which this measurement has been performed.

9.2.1.53E SFN-SFN Measurement Value Information

The *SFN-SFN Measurement Value Information* IE indicates the measurement result related to SFN-SFN Observed Time Difference measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information		*1..<maxnoMeasNCell>*		
>UC-Id	M		9.2.1.65B	
>SFN-SFN Value	M		9.2.1.53F	
>SFN-SFN Quality	O		INTEGER (0..255)	Indicates the standard deviation (std) of the SFN-SFN Observed Time Difference measurements in 1/16 chip. SFN-SFN Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Value, where x is the reported SFN-SFN Value and $\mu = E[x]$ is the expectation value of x.
>SFN-SFN Drift Rate	M		INTEGER (-100..+100)	Indicates the SFN-SFN drift rate in 1/256 chip per second. A positive value indicates that the Reference cell clock is running at a greater frequency than the measured neighbouring cell.
>SFN-SFN Drift Rate Quality	O		INTEGER (0..100)	Indicates the standard deviation (std) of the SFN-SFN drift rate measurements in 1/256 chip per second. SFN-SFN Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Drift Rate, where x is the reported SFN-SFN Drift Rate and $\mu = E[x]$ is the expectation value of x.
>SFN-SFN Measurement Time Stamp	M		9.2.1.53D	
Unsuccessful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information		*0..<maxnoMeasNCell-1>*		
>UC-Id	M		9.2.1.65B	

Range Bound	Explanation
maxnoMeasNCell	Maximum number of neighbouring cells that can be measured on

9.2.1.53F SFN-SFN Value

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Mode*	M			
>FDD				
>>SFN-SFN	M		INTEGER (0..614399)	According to mapping in [22].
>TDD				1.28 Mcps and 3.84 Mcps only
>>SFN-SFN	M		INTEGER (0..40961)	According to mapping in [23].
>TDD 7.68 Mcps				
>>SFN-SFN	M		INTEGER (0..81923)	According to mapping in [23].

9.2.1.53G RL Specific DCH Information

The *RL Specific DCH Information* IE provides RL specific DCH Information for DCHs. In the case of a set of co-ordinated DCHs requiring a new transport bearer on Iub, the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE shall be included only for one of the DCHs in the set of co-ordinated DCHs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
RL Specific DCH Information		*1..<maxnoofDCHs>*			–	
>DCH ID	M		9.2.1.20		–	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	–	
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	–	
>Transport Bearer Not Requested Indicator	O		9.2.2.4G	FDD Only	YES	ignore

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE

9.2.1.53H Scheduling Priority Indicator

Indicates the relative priority of the HS-DSCH [FDD - or E-DCH data frame]. Used by the Node B when scheduling HS-DSCH[FDD - or E-DCH].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Scheduling Priority Indicator			INTEGER (0..15)	Relative priority of the HS-DSCH [FDD - or E-DCH data frame]: "0" =Lowest Priority … "15" =Highest Priority

9.2.1.53I SID

The *SID* IE provides the identity of the Size Index.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SID			INTEGER (0..7)	

9.2.1.54 SIB Deletion Indicator

Void.

9.2.1.55 SIB Originator

Indicates if the Node B shall fill in the SIB information or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SIB Originator			ENUMERATED (Node B, CRNC, …)	

9.2.1.55A Signalling Bearer Request Indicator

The *Signalling Bearer Request Indicator* IE indicates if a new signalling bearer needs to be established for the control of Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Signalling Bearer Request Indicator			ENUMERATED (Bearer Requested)	

9.2.1.56 Shutdown Timer

The shutdown timer shall indicate the length of time available to the CRNC to perform the block of a resource when a Normal priority block is requested.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Shutdown Timer			INTEGER (1..3600)	Unit: second

9.2.1.56a T1

The *T1* IE is used as described in ref [32] subclause 11.6.2.3.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
T1			ENUMERATED (10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 120, 140, 160, 200, 300, 400, …)	Unit: ms Node B may use this value to stop the re-transmission of the corresponding MAC-hs PDU.

9.2.1.56A T_RLFAILURE

The Radio Link Failure procedure shall be triggered after a period of time T_RLFAILURE has elapsed with a persisting out-of-sync indication (see also ref. [10] and [21]).

Information Element/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T_RLFAILURE			INTEGER (0..255)	Unit: second Range: 0 .. 25.5 s Step: 0.1 s

9.2.1.56B Start Of Audit Sequence Indicator

Indicates if the AUDIT REQUEST message initiates a new audit sequence or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Start Of Audit Sequence Indicator			ENUMERATED (Start Of Audit Sequence, Not Start Of Audit Sequence)	

9.2.1.56C TFCI2 Bearer Request Indicator

Void.

9.2.1.57 TFCI Presence

The TFCI Presence parameter indicates whether the TFCI shall be included. [TDD - If it is present in the timeslot, it will be mapped to the channelisation code defined by [19].]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TFCI presence			ENUMERATED (Present, Not Present)	

9.2.1.58 TFCS (Transport Format Combination Set)

The Transport Format Combination Set is defined as a set of Transport Format Combinations on a Coded Composite Transport Channel. It is the allowed Transport Format Combinations of the corresponding Transport Channels. The DL Transport Format Combination Set is applicable for DL Transport Channels.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *TFCS Values*	M			
>Always Used				This choice is always made.
>>TFCS		*1..<maxnoofTFCs>*		The first instance of the parameter corresponds to TFCI zero, the second to 1 and so on. [TDD - The first entry (for TFCI 0) should be ignored by the receiver.]
>>>CTFC	M		9.2.1.18A	
>>>CHOICE *Gain Factors*	C-PhysChan			
>>>>Signalled Gain Factors				
>>>>>CHOICE *Mode*	M			
>>>>>>FDD				
>>>>>>>Gain Factor β_C	M		INTEGER (0..15)	For UL DPCCH or control part of PRACH; mapping in accordance to [9]
>>>>>>>Gain Factor β_D	M		INTEGER (0..15)	For UL DPDCH or data part of PRACH: mapping in accordance to [9]
>>>>>>TDD				
>>>>>>>Gain Factor β	M		iNTEGER (0..15)	For UL DPCH in TDD; mapping in accordance to [20].
>>>>>Reference TFC nr	O		INTEGER (0..3)	If this TFC is a reference TFC, this IE indicates the reference number.
>>>>Computed Gain Factors				
>>>>>Reference TFC nr	M		INTEGER (0..3)	Indicates the reference TFC to be used to calculate the gain factors for this TFC.
>Not Used				This choice shall never be made by the CRNC and the Node B shall consider the procedure as failed if it is received.

Condition	Explanation
PhysChan	The IE shall be present if the TFCS concerns a UL DPCH or PRACH channel .

Range Bound	Explanation
maxnoofTFCs	The maximum number of Transport Format Combinations

9.2.1.58A TNL QoS

This IE indicates the TNL QoS characteristics of the transport bearer for the uplink data traffic.

When the *DS Field* IE is used, the value of this IE is configurable by the operator.

When the *Generic Traffic Category* IE is used, generic traffic categories are implementation-specific (e.g. they may be determined by the sender from the application parameters). The value assigned to each of these categories and sent in the *Generic Traffic Category* IE is configurable by the operator, as well as the mapping of this value to DS field [35] at the Node B side.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *TNL QoS type*	M			
>DS Field				
>>DS Field	M		BIT STRING (8)	DS Field as defined in [35]. Typically used when the Node B and its CRNC are in the same DS domain as defined in [36].
>Generic Traffic Category				
>>Generic Traffic Category	M		BIT STRING (8)	

9.2.1.59 Transport Format Set

The Transport Format Set is defined as the set of Transport Formats associated to a Transport Channel, e.g. DCH.

[TDD - The Transport Format Set for each transport channel within the same CCTrCH shall have the same value for the *2nd Interleaving Mode* IE.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Dynamic Transport Format Information		*1..<maxTF count>*		The first instance of the parameter corresponds to TFI zero, the second to 1 and so on.
>Number of Transport Blocks	M		INTEGER (0..512)	
>Transport Block Size	C-Blocks		INTEGER (0..5000)	Unit: Bits
>CHOICE *Mode*	M			
>>TDD				
>>>Transmission Time Interval Information	C-TTIdynamic	*1..<maxTTIcount>*		
>>>>Transmission Time Interval	M		ENUMERATED (10, 20, 40, 80,…)	Unit: ms
Semi-Static Transport Format Information		1		
>Transmission Time Interval	M		ENUMERATED (10, 20, 40, 80, dynamic,…,5)	Unit: ms; Value "dynamic' for TDD only; Value "5' for LCR TDD only; For FDD DCH, the value "80" is applicable only when *DL DPCH Slot Format* IE indicates a slot format with SF=512.
>Type Of Channel Coding	M		ENUMERATED (No codingTDD, Convolutional, Turbo, …)	[FDD - The value "No codingTDD" shall be treated as logical error if received]
>Coding Rate	C-Coding		ENUMERATED (1/2, 1/3,…)	
>Rate Matching Attribute	M		INTEGER (1..maxRM)	
>CRC Size	M		ENUMERATED (0, 8, 12, 16, 24,…)	
>CHOICE *Mode*	M			
>>TDD				
>>>2nd Interleaving Mode	M		ENUMERATED (Frame related, Timeslot related, …)	

Condition	Explanation
Blocks	The IE shall be present if the *Number Of Transport Blocks* IE is set to a value greater than 0.
Coding	The IE shall be present if the *Type Of Channel Coding* IE is set to "Convolutional" or "Turbo".
TTIdynamic	The IE shall be present if the *Transmission Time Interval* IE in the *Semi-Static Transport Format Information* IE is set to "dynamic'.

Range Bound	Explanation
maxTFcount	Maximum number of different Transport Formats that can be included in the Transport Format Set for one transport channel
maxRM	Maximum number that could be set as rate matching attribute for a transport channel
maxTTIcount	The amount of different TTIs that are possible for that Transport Format

9.2.1.60 ToAWE

TOAWE is the window endpoint. DL data frames are expected to be received before this window endpoint. TOAWE is defined with a positive value relative Latest Time of Arrival (LTOA). A data frame arriving after TOAWE gives a Timing Adjustment Control frame response.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
ToAWE			INTEGER (0..2559)	Unit: ms

9.2.1.61 ToAWS

TOAWS is the window startpoint. DL data frames are expected to be received after this window startpoint. TOAWS is defined with a positive value relative Time of Arrival Window Endpoint (TOAWE). A data frame arriving before TOAWS gives a Timing Adjustment Control frame response.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
ToAWS			INTEGER (0..1279)	Unit: ms

9.2.1.62 Transaction ID

The transaction ID is used to associate all the messages belonging to the same procedure. Messages belonging to the same procedure shall use the same transaction ID.

The transaction ID is determined by the initiating peer of a procedure. For common procedures the transaction ID shall uniquely identify a procedure within all ongoing parallel procedures initiated by one protocol peer, using the same procedure code and signalled over the same Node B Control Port. For dedicated procedures the transaction ID shall uniquely identify a procedure within all ongoing parallel procedures initiated by one protocol peer, using the same procedure code and initiated towards the same Node B/CRNC context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Transaction ID Length*				The Transaction ID shall be interpreted for its integer value, not for the type of encoding ("short" or "long").
>*Short*				
>>Transaction ID Value	M		INTEGER (0..127)	
>*Long*				
>>Transaction ID Value	M		INTEGER (0..32767)	

9.2.1.62A Transport Bearer Request Indicator

Indicates whether a new transport bearer needs to be established for carrying the concerned transport channel.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Bearer Request Indicator			ENUMERATED (Bearer Requested, Bearer Not Requested, …)	

9.2.1.63 Transport Layer Address

In case of transport bearer establishment with ALCAP [2][31], this IE contains the address to be used for Transport Network Control Plane signalling to establish the transport bearer according to [2][31].

In order to allow transport bearer establishment without ALCAP, this IE contains the address of the transport bearer to be used for the user plane transport.

For details on the Transport Address used see ref. [2][31].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Layer Address			BIT STRING (1..160, …)	

9.2.1.64 TSTD Indicator

Indicates if TSTD shall be active or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TSTD Indicator			ENUMERATED (active, inactive)	

9.2.1.64A $T_{UTRAN-GPS}$ Measurement Value Information

The $T_{UTRAN-GPS}$ *Measurement Value Information* IE indicates the measurement results related to the UTRAN GPS Timing of Cell Frames for UE Positioning measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
$T_{UTRAN-GPS}$		*1*		Indicates the UTRAN GPS Timing of Cell Frames forUE Positioning. According to mapping in [22]. Significant values range from 0 to 37158911999999.
>MS	M		INTEGER (0..16383)	Most Significant Part
>LS	M		INTEGER (0..4294967295)	Least Significant Part
$T_{UTRAN-GPS}$ Quality	O		INTEGER (0..255)	Indicates the standard deviation (std) of the $T_{UTRAN-GPS}$ measurements in 1/16 chip. $T_{UTRAN-GPS}$ Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Value, where x is the reported $T_{UTRAN-GPS}$ Value and $\mu = E[x]$ is the expectation value of x.
$T_{UTRAN-GPS}$ Drift Rate	M		INTEGER (-50..+50)	Indicates the $T_{UTRAN-GPS}$ drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GPS clock.
$T_{UTRAN-GPS}$ Drift Rate Quality	O		INTEGER (0..50)	Indicates the standard deviation (std) of the $T_{UTRAN-GPS}$ drift rate measurements in 1/256 chip per second. $T_{UTRAN-GPS}$ Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Drift Rate, where x is the reported $T_{UTRAN-GPS}$ Drift Rate and $\mu = E[x]$ is the expectation value of x.

9.2.1.64B $T_{UTRAN-GPS}$ Measurement Threshold Information

The $T_{UTRAN-GPS}$ Measurement Threshold Information defines the related thresholds for UTRAN GPS Timing of Cell Frames for UE Positioning measurements shall trigger the event On Modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
$T_{UTRAN-GPS}$ Change Limit	O		INTEGER (1..256)	Change of $T_{UTRAN-GPS}$ value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip.
Predicted $T_{UTRAN-GPS}$ Deviation Limit	O		INTEGER (1..256)	Deviation of the predicated $T_{UTRAN-GPS}$ from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip.

9.2.1.64C $T_{UTRAN-GPS}$ Accuracy Class

The *$T_{UTRAN-GPS}$ Accuracy Class* IE indicates the accuracy class of the UTRAN GPS Timing of Cell Frames for UE Positioning measurement.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
$T_{UTRAN-GPS}$ Accuracy Class			ENUMERATED (Accuracy Class A, Accuracy Class B, Accuracy Class C, …)	More information about $T_{UTRAN-GPS}$ Measurement Accuracy Class is included in [22] and [23].

9.2.1.65 UARFCN

Designates the carrier frequency.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UARFCN			INTEGER (0..16383,…)	As defined in subclause 5.4.3 in [14] and [15]

9.2.1.65A UL Capacity Credit

The capacity credit indicates to the CRNC the Uplink capacity of a Local Cell or a Local Cell Group.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Capacity Credit			INTEGER (0..65535)	

9.2.1.65B UTRAN Cell Identifier (UC-Id)

The UC-Id (UTRAN Cell identifier) is the identifier of a cell in one UTRAN.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
RNC-Id	M		9.2.1.53a	If the *Extended RNC-ID* IE is included in the *UC-Id* IE, the *RNC-Id* IE shall be ignored.	–	–
C-Id	M		9.2.1.9		–	–
Extended RNC-ID	O		9.2.1.65C	The *Extended RNC-ID* IE shall be used if the RNC identity has a value larger than 4095.	YES	reject

9.2.1.65C Extended RNC-ID

This is the identifier of one RNC in UTRAN.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended RNC-ID			INTEGER(4096..65535)	Note: Application of the *Extended RNC-ID* IE to very large networks is FFS.

9.2.1.66 UL FP Mode

This parameter defines if normal or silent mode of the Frame Protocol shall be used for the UL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL FP Mode			ENUMERATED (Normal, Silent, …)	

9.2.1.67 UL interference level

Void.

9.2.1.67A UL SIR

The UL SIR indicates a received UL SIR.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL SIR			INTEGER (-82..173)	Value = UL SIR/10 Unit: dB Range: -8.2 .. +17.3 dB Step: 0.1 dB

9.2.1.68 Unidirectional DCH Indicator

The *Unidirectional DCH Indicator* IE indicates that the DCH is unidirectional.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Unidirectional DCH Indicator			ENUMERATED (Downlink DCH only, Uplink DCH only)	

9.2.1.69 E-DCH MAC-d Flow Multiplexing List

The E-DCH MAC-d Flow Multiplexing List indicates which E-DCH MAC-d flows are allowed to be multiplexed within a MAC-e PDU with the MAC-d flow it is associated to. If the E-DCH MAC-d Flow Multiplexing List is signalled for an E-DCH MAC-d flow it indicates that E-DCH MAC-d PDUs of this E-DCH MAC-d flow are the first E-DCH MAC-d PDU in the MAC-e PDU. If an E-DCH MAC-d Flow Multiplexing List was already received within a previous Radio Link related procedure and no E-DCH MAC-d Flow Multiplexing List is signalled for an E-DCH MAC-d flow, the Node B shall continue to use the previously received one. If no E-DCH MAC-d Flow Multiplexing List was ever received for an E-DCH MAC-d flow no restrictions shall be assumed for the related E-DCH MAC-d flow for multiplexing E-DCH MAC-d flows.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flow Multiplexing List			BIT STRING (8)	The first Bit corresponds to E-DCH MAC-d flow 0, the second bit corresponds to E-DCH MAC-d flow 1, etc.

9.2.1.70 E-DCH Capability

This parameter defines the E-DCH capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Capability			ENUMERATED (E-DCH Capable, E-DCH non Capable)	

9.2.1.71 E-DCH Logical Channel Information

The *E-DCH Logical Channel Information* IE is used for the establishment of E-DCH Logical Channels.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Logical Channel Information		*1..<maxnooflogicalchannels>*		
>Logical Channel ID	M		9.2.1.80	
>Scheduling Priority Indicator	M		9.2.1.53H	
>Scheduling Information	M		9.2.1.84	
>MAC-es Guaranteed Bit Rate	O		9.2.1.82	
>E-DCH DDI Value	M		9.2.1.76	If more than 1 MAC-d PDU size is configured for this Logical Channel, the different sizes will use subsequent DDI values starting from this DDI value. Value '0x3F' is reserved
>MAC-d PDU Size List		*1..<maxnoofMACdPDUSize>*		
>>MAC-d PDU Size	M		9.2.1.38A	

Range Bound	Explanation
Maxnooflogicalchannels	Maximum number of logical channels
maxnoofMACdPDUSize	Maximum number of MAC-d PDU size per Logical Channels

9.2.1.72 E-DCH Logical Channel To Modify

The *E-DCH Logical Channel To Modify* IE is used for the reconfiguration of E-DCH Logical Channels.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Logical Channel Information		*1..<maxnooflogicalchannels>*		
>Logical Channel ID	M		9.2.1.80	
>Scheduling Priority Indicator	O		9.2.1.53H	
>Scheduling Information	O		9.2.1.84	
>MAC-es Guaranteed Bit Rate	O		9.2.1.82	
>E-DCH DDI Value	O		9.2.1.76	If more than 1 MAC-d PDU size is configured for this Logical Channel, the different sizes will use subsequent DDI values starting from this DDI value. Value '0x3F' is reserved
>MAC-d PDU Size List		*0..<maxnoofMACdPDUSize>*		
>>MAC-d PDU Size	M		9.2.1.38A	

Range Bound	Explanation
maxnooflogicalchannels	Maximum number of logical channels
maxnoofMACdPDUSize	Maximum number of MAC-d PDU size per Logical Channels

9.2.1.73 E-DCH MAC-d Flows To Delete

The *E-DCH MAC-d Flows To Delete* IE is used for the removal of E-DCH MAC-d flows.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flows To Delete		*1..<maxnoofEDCHMACdFlows>*		
>E-DCH MAC-d Flow ID	M		9.2.1.74	

Range Bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows

9.2.1.74 E-DCH MAC-d Flow ID

The E-DCH MAC-d Flow ID is the unique identifier for one MAC-d flow on E-DCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flow ID			INTEGER (0..maxnoofEDCHMACdFlows - 1)	

Range Bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows

9.2.1.75 E-RNTI

The E-RNTI is needed for the UE (or UE group) specific CRC in E-AGCH, see ref. [38].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-RNTI			INTEGER (0..65535)	

9.2.1.76 E-DCH DDI Value

The E-DCH DDI Value is the Data Description Indicator value identifying a unique combination of E-DCH MAC-d Flow ID and MAC-d PDU Size.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH DDI Value			INTEGER (0..62)	

9.2.1.77 E-DCH Provided Bit Rate Value

The *E-DCH Provided Bit Rate Value* IE indicates the E-DCH Provided Bit Rate as defined in [32].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Provided Bit Rate Value			INTEGER (0..2^24-1, …)	Expressed in bit/s.

9.2.1.78 E-DCH Provided Bit Rate Value Information

The *E-DCH Provided Bit Rate Value Information* IE reports the *E-DCH Provided Bit Rate Value* IE for each priority class.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Provided Bit Rate Value Information		*1..<maxNoofPriorityClasses>*		
>Scheduling Priority Indicator	M		9.2.1.53H	
>E-DCH Provided Bit Rate Value	M		9.2.1.77	

Range Bound	Explanation
maxNoofPriorityClasses	Maximum number of E-DCH Scheduling Priorities

9.2.1.79 E-DCH Processing Overload Level

The *E-DCH Processing Overload Level* IE defines the threshold that determines when the Node B shall indicate processing issue problems to the RNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
E-DCH Processing Overload Level			INTEGER (0..10,…)	Number of consecutive TTIs. The value "0" is a special value that means infinity, i.e. when this value is used, the Node B shall never indicate processing issue to the RNC.

9.2.1.80 Logical channel ID

The *Logical Channel ID* IE is used to identify a E-DCH logical channel in Sheduling Information that is sent over Uu.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Logical Channel ID			INTEGER (1..15)	

9.2.1.81 Maximum Number Of Retransmissions For E-DCH

The *Maximum Number Of Retransmissions For E-DCH* IE specifies the upper boundary for retransmissions for a single MAC-d flow.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number Of Retransmissions For E-DCH			INTEGER (0..15)	

9.2.1.82 MAC-es Guaranteed Bit Rate

The *MAC-es Guaranteed Bit Rate* IE indicates the guaranteed number of bits per second to be delivered over the air interface under normal operating conditions (provided there is data to deliver) for which the Node B shall provide sufficient UL resources. If the *MAC-es Guaranteed Bit Rate* IE is received with the value set to 0 during RL set up or modification, no guarantee is applied.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
MAC-es Guaranteed Bit Rate			INTEGER (0..2^24-1, …, 2^24..256,000,000)	Unit: bit/s

9.2.1.83 MAC-e Reset Indicator

Indicates the MAC-e Reset is performed in UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-e Reset Indicator			ENUMERATED (MAC-e Reset)	

9.2.1.84 Scheduling Information

The *Scheduling Information* IE indicates whether the scheduling information is included for the E-DCH logical channel or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Scheduling Information			ENUMERATED (Included, Not Included)	

9.2.1.85 E-DCH Power Offset for Scheduling Info

The *E-DCH Power Offset for Scheduling Info* is used to calculate the [FDD - E-DPDCH][TDD - E-PUCH] power for transmision of scheduling information without any MAC-d PDUs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Power Offset for Scheduling Info			INTEGER (0..6)	Unit: dB Step: 1 dB

9.2.1.86 MBMS Capability

This parameter defines the MBMS capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MBMS Capability			ENUMERATED (MBMS Capable, MBMS non Capable)	

9.2.1.87 Modulation

Indicates the modulation to be used for a S-CCPCH CCTrCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Modulation			ENUMERATED (QPSK, 16QAM, …)	

9.2.1.88 DGANSS Corrections

This IE contains DGANSS corrections.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
DGANSS Reference Time	M		INTEGER(0. .3570 by step of 30)	Seconds. Time in GNSS system time (modulo 3600 s) when the DGANSS corrections were calculated
DGANSS Information		*1 to <maxSgnType>*		
>GANSS Signal ID	O		9.2.1.106	
>Status/Health	M		ENUMERATED(UDRE scale 1.0, UDRE scale 0.75, UDRE scale 0.5, UDRE scale 0.3, UDRE scale 0.2, UDRE scale 0.1, no data, invalid data)	
>**DGANSS Signal Information**	C-*Status/Health*	*1 to <maxGANSSSat>*		If the Cipher information is included these fields are ciphered.
>>Sat ID	M		INTEGER(0 …63)	Identifies the satellite and is equal to (SV ID No - 1)
>>IOD	M		BIT STRING(10)	
>>UDRE	M		ENUMERATED(UDRE ≤ 1.0 m, 1.0m < UDRE ≤ 4.0m, 4.0m < UDRE ≤ 8.0m, 8.0m < UDRE)	The value in this field shall be multiplied by the UDRE Scale Factor in the IE Status/Health to determine the final UDRE estimate for the particular satellite.
>>PRC	M		INTEGER(-2047..2047)	Scaling factor 0.32 meters
>>RRC	M		INTEGER(-127..127)	Scaling factor 0.032 meters/sec

Condition	Explanation
Status/Health	This IE shall be present if the *Status/Health* IE value is not equal to "no data" or "invalid data".

Range Bound	Explanation
maxGANSSSat	Maximum number of satellites for which data is included in the IE
maxSgnType	Maximum number of signals for which data is included in the IE

9.2.1.89 GANSS Almanac

This IE contains a reduced-precision subset of the ephemeris and clock correction parameters.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
Week Number	M		INTEGER(0. .255)	Almanac reference week , number of weeks since the beginning of GANSS specific system time (mod 256)
CHOICE *Almanac Model*	M			
>*Keplerian Parameters*				
>>T_{oa}	M		INTEGER(0. .255)	Scaling factor 2^{12} s Reference time of almanac within week in GANSS TOD time base
>>IOD_a	M		INTEGER(0. .3)	Issue-Of –Data, common to all satellites
>>**Satellite Information KP**		*1 to <maxGANSSSatAlmanac>*		Almanacs are in the order of the SV IDs, the smallest ID first.
>>>Sat ID	M		INTEGER(0. .63)	Identifies the satellite and is equal to (SV ID No - 1)
>>>e	M		BIT STRING(11)	Eccentricity, dimensionless [39]
>>>δi	M		BIT STRING(11)	semi-circles [39]
>>>OMEGADOT	M		BIT STRING(11)	Longitude of Ascending Node of Orbit Plane at Weekly Epoch (semi-circles/sec) [39]
>>>SV Health KP	M		BIT STRING(4)	dimensionless
>>>delta $A^{1/2}$	M		BIT STRING(17)	Semi-Major Axis delta $(meters)^{1/2}$ [39]
>>>$OMEGA_0$	M		BIT STRING(16)	Longitude of Ascending Node of Orbit Plane at Weekly Epoch (semi-circles) [39]
>>>M_0	M		BIT STRING(16)	Mean Anomaly at Reference Time (semi-circles) [39]
>>>ω	M		BIT STRING(16)	Argument of Perigee (semi-circles) [39]
>>>af_0	M		BIT STRING(14)	Seconds [39]
>>>af_1	M		BIT STRING(11)	sec/sec [39]

Range Bound	Explanation
maxGANSSSatAlmanac	Maximum number of satellites for which data is included in the IE

9.2.1.90 GANSS Clock Model

The IE contains fields needed to model the GANSS clock parameters.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
Satellite Clock Model		*1 to <maxGANSSClockMod>*		There may be more than one clock model included if defined in SIS ICD (e.g. two for Galileo)
>t_{oc}_LSB	M		INTEGER(0..511)	Least significant bits of Time-of-Clock in seconds
>a_{i2}	M		BIT STRING(12)	defined in [39]
>a_{i1}	M		BIT STRING(18)	defined in [39]
>a_{i0}	M		BIT STRING(28)	defined in [39]
>T_{GD}	O		BIT STRING(10)	defined in [39]
>Model ID	O		INTEGER(0..1,…)	Coded as defined in [18].

Range bound	Explanation
maxGANSSClockMod	Maximum number of satellite clock models for which data is included in the IE.

9.2.1.91 GANSS Ionospheric Model

The IE contains fields needed to model the propagation delays of the GANSS signals through the ionosphere.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
a_{i0}	M		BIT STRING(12)	This parameter is used as defined in [39]
a_{i1}	M		BIT STRING(12)	This parameter is used as defined in [39]
a_{i2}	M		BIT STRING(12)	This parameter is used as defined in [39]
GANSS Ionosphere Regional Storm Flags		*0..1*		
>Storm Flag 1	M		BOOLEAN	This parameter is used as defined in [39]
>Storm Flag 2	M		BOOLEAN	This parameter is used as defined in [39]
>Storm Flag 3	M		BOOLEAN	This parameter is used as defined in [39]
>Storm Flag 4	M		BOOLEAN	This parameter is used as defined in [39]
>Storm Flag 5	M		BOOLEAN	This parameter is used as defined in [39]

9.2.1.92 GANSS Navigation Model

Void.

9.2.1.93 GANSS Orbit Model

This IE contains information for GANSS orbit model parameters.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
CHOICE *Orbit Model*	M			
>Keplerian Parameters				
>>t_{oe_LSB}	M		INTEGER(0. .511)	Least significant bits of Time-of-Ephemeris in seconds, scale factor 60
>>ω	M		BIT STRING(32)	Argument of Perigee (semi-circles) [39]
>>Δn	M		BIT STRING(16)	Mean Motion Difference From Computed Value (semi-circles/sec) [39]
>>M_0	M		BIT STRING(32)	Mean Anomaly at Reference Time (semi-circles) [39]
>>OMEGAdot	M		BIT STRING(24)	Longitude of Ascending Node of Orbit Plane at Weekly Epoch (semi-circles/sec) [39]
>>e_LSB	M		INTEGER(0. .33554431)	Least significant bits of eccentricity, scale factor 2^{-33}
>>Idot	M		BIT STRING(14)	Rate of Inclination Angle (semi-circles/sec) [39]
>>sqrtA_LSB	M		INTEGER(0. .67108863)	Least significant bits of Semi-Major Axis in $(\text{meters})^{1/2}$, scale factor 2^{-19}
>>i_0	M		BIT STRING(32)	Inclination Angle at Reference Time (semi-circles) [39]
>>$OMEGA_0$	M		BIT STRING(32)	Longitude of Ascending Node of Orbit Plane at Weekly Epoch (semi-circles) [39]
>>C_{rs}	M		BIT STRING(16)	Amplitude of the Sine Harmonic Correction Term to the Orbit Radius (meters) [39]
>>C_{is}	M		BIT STRING(16)	Amplitude of the Sine Harmonic Correction Term To The Angle Of Inclination (radians) [39]
>>C_{us}	M		BIT STRING(16)	Amplitude of the Sine Harmonic Correction Term To The Argument Of Latitude (radians) [39]
>>C_{rc}	M		BIT STRING(16)	Amplitude of the Cosine Harmonic Correction Term to the Orbit Radius (meters) [39]
>>C_{ic}	M		BIT STRING(16)	Amplitude of the Cosine Harmonic Correction Term To The Angle Of Inclination (radians) [39]
>>C_{uc}	M		BIT STRING(16)	Amplitude of the Cosine Harmonic Correction Term To The Argument Of Latitude (radians) [39]

9.2.1.94 GANSS Real Time Integrity

This IE contains parameters that describe the real-time status of the GANSS constellation.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
Satellite Information		*1 to <maxGANSSSat>*		
>Bad GANSS Sat ID	M		INTEGER(0..63)	Identifies the satellite and is equal to (SV ID No - 1).
>Bad GANSS Signal ID	O		BIT STRING(8)	Coded as defined in [18].

Range Bound	Explanation
maxGANSSSat	Maximum number of satellites for which data is included in the IE

9.2.1.95 GANSS Receiver Geographical Position (GANSS RX Pos)

The *GANSS Receiver Geographical Position* IE is used to identify the geographical coordinates of a GANSS receiver relevant for a certain Information Exchange Object.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Latitude Sign	M		ENUMERATED (North, South)	
Degrees of Latitude	M		INTEGER (0..2^{31}-1)	The IE value (N) is derived by this formula: $N \leq 2^{31} X / 90 < N+1$ X being the latitude in degree (0°.. 90°)
Degrees of Longitude	M		INTEGER (-2^{31}..2^{31}-1)	The IE value (N) is derived by this formula: $N \leq 2^{32} X / 360 < N+1$ X being the longitude in degree (-180°..+180°)
Direction of Altitude	M		ENUMERATED (Height, Depth)	
Altitude	M		INTEGER (0..2^{15}-1)	The relation between the value (N) and the altitude (a) in meters it describes is $N \leq a < N+1$, except for $N=2^{15}-1$ for which the range is extended to include all greater values of (a).

9.2.1.96 GANSS Time Model

The *GANSS Time Model* IE contains a set of parameters needed to relate GANSS time to selected time reference indicated by GNSS_TO_ID.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
GANSS Time Model Reference Time	M		INTEGER(0. . 37799)	GANSS reference time (modulo 1 week) in seconds. The scale factor is 2^4
T_{A0}	M		INTEGER(-2147483648. .2147483647)	Seconds, scale factor 2^{-35}
T_{A1}	O		INTEGER(-8388608..8388607)	sec/sec, scale factor 2^{-51}
T_{A2}	O		INTEGER(-64..63)	sec/sec^2 , scale factor 2^{-68}
GNSS_TO_ID	M		ENUMERATED(GPS,…)	
Week Number	O		INTEGER(0. .8191)	Reference week of GANSS Time Model

9.2.1.97 GANSS UTC Model

The *GANSS UTC Model* IE contains a set of parameters needed to relate GANSS time to Universal Time Coordinate (UTC).

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
A_1	M		BIT STRING(24)	sec/sec [39]
A_0	M		BIT STRING(32)	seconds [39]
t_{ot}	M		BIT STRING(8)	seconds [39]
WN_t	M		BIT STRING(8)	weeks [39]
Δt_{LS}	M		BIT STRING(8)	seconds [39]
WN_{LSF}	M		BIT STRING(8)	weeks [39]
DN	M		BIT STRING(8)	days [39]
Δt_{LSF}	M		BIT STRING(8)	seconds [39]

9.2.1.98 $T_{UTRAN\text{-}GANSS}$ Accuracy Class

The *$T_{UTRAN\text{-}GANSS}$ Accuracy Class* IE indicates the accuracy class of the UTRAN GANSS Timing of Cell Frames for UE Positioning measurement.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
$T_{UTRAN\text{-}GANSS}$ Accuracy Class			ENUMERATED (Accuracy Class A, Accuracy Class B, Accuracy Class C, …)	More information about $T_{UTRAN\text{-}GANSS}$ Measurement Accuracy Class is included in [22] and [23].

9.2.1.99 $T_{UTRAN\text{-}GANSS}$ Measurement Threshold Information

The *$T_{UTRAN\text{-}GANSS}$ Measurement Threshold Information* IE defines the related thresholds for UTRAN GANSS Timing of Cell Frames for UE Positioning measurements shall trigger the event On Modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
$T_{UTRAN-GANSS}$ Change Limit	O		INTEGER (1..256)	Change of $T_{UTRAN-GANSS}$ value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip.
Predicted $T_{UTRAN-GANSS}$ Deviation Limit	O		INTEGER (1..256)	Deviation of the predicated $T_{UTRAN-GANSS}$ from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip.

9.2.1.100 $T_{UTRAN-GANSS}$ Measurement Value Information

The $T_{UTRAN-GANSS}$ *Measurement Value Information* IE indicates the measurement results related to the UTRAN GANSS Timing of Cell Frames for UE Positioning measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
$T_{UTRAN-GANSS}$	M			Indicates the UTRAN GANSS Timing of Cell Frames for UE Positioning. According to mapping in [23]; significant values range from 0 to 37158911999999.
>MS	M		INTEGER(0..16383)	Most Significant Part
>LS	M		INTEGER(0..4294967295)	Least Significant Part
$T_{UTRAN-GANSS}$ Quality	O		INTEGER(0..255)	Indicates the standard deviation (std) of the $T_{UTRAN- GANSS}$ measurements in 1/16 chip. $T_{UTRAN- GANSS}$ Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GANSS}$ Value, where x is the reported $T_{UTRAN-GANSS}$ Value and $\mu = E[x]$ is the expectation value of x.
$T_{UTRAN-GANSS}$ Drift Rate	M		INTEGER(-50..50)	Indicates the $T_{UTRAN- GANSS}$ drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GANSS clock.
$T_{UTRAN-GANSS}$ Drift Rate Quality	O		INTEGER(0..50)	Indicates the standard deviation (std) of the $T_{UTRAN- GANSS}$ drift rate measurements in 1/256 chip per second. $T_{UTRAN- GANSS}$ Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN- GANSS}$ Drift Rate, where x is the reported $T_{UTRAN- GANSS}$ Drift Rate and $\mu = E[x]$ is the expectation value of x.

9.2.1.101 GANSS Reference Time

Void.

9.2.1.102 HARQ Memory Partitioning

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE *HARQ Memory Partitioning*		*1*			–	
>Implicit						
>>Number of Processes	M		INTEGER (1..8,...12,14,16)	For HARQ process IDs going from 0 to "Number of Processes" – 1 the Total number of soft channel bits [33] is partitioned equally between all HARQ processes according to the rules in [18].	–	
>Explicit						
>>HARQ Memory Partitioning Infomation		*1..<maxnoofHARQprocesses>*		The first instance of the parameter corresponds to HARQ process with identifier 0, the second instance to HARQ process with identifier 1, and so on.	–	
>>>Process Memory Size	M		9.2.1.49D	See [18]	–	
>>HARQ Memory Partitioning Information Extension For MIMO		*0, 4, 6 or 8*		FDD only The 1st instance corresponds to HARQ process with identifier set to 'maxnoofHARQprocesses', the 2nd instance to HARQ process with identifier set to 'maxnoofHARQprocesses+1', and so on.	GLOBAL	ignore
>>>Process Memory Size	M		9.2.1.49D	See [18]	–	

Range Bound	Explanation
MaxnoofHARQprocesses	Maximum number of HARQ processes for one UE [FDD - per stream (the maximum number of HARQ processes per UE is 2 * *MaxnoofHARQprocesses* in dual stream transmission mode)]

9.2.1.103 GANSS Data Bit Assistance

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
GANSS TOD	M		INTEGER(0..59,…)	Refererence time (modulo 1 minute) of the first bit of the data in *Data Bits* IE, in seconds.
Data Bit Assistance List		1..<*maxGANSSSat*>		
>Sat ID	M		INTEGER(0..63)	Identifies the satellite and is equal to (SV ID No - 1)
>Data Bit Assistance Sgn List		1..<*maxSgnType*>		
>>GANSS Signal ID	M		9.2.1.106	
>>Data Bits	M		BIT STRING(1..1024)	Raw data bits as transmitted from a specific satellite at the time indicated by GANSS_TOD.

Range Bound	Explanation
maxGANSSSat	Maximum number of satellites for which data is included in the IE
maxSgnType	Maximum number of GANSS signals included in the IE

9.2.1.104 GANSS ID

This IE defines a particular GANSS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
GANSS ID	M		INTEGER(0..7,…)	Defines the GANSS and is coded as defined in [18]. All values are reserved in this version of the protocol.

9.2.1.105 GANSS Navigation Model And Time Recovery

This IE contain information required to manage the transfer of precise navigation data to the GANSS-capable UE.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description

GANSS Transmission Time	M		9.2.1.107	GANSS Time when the Navigation model has been retrieved
Non-Broadcast Indication	O		ENUMERATED(true)	If this IE is present, GANSS navigation model is not derived from satellite broadcast. See NOTE 1
$T_{oe/c}$ MSB	C-*Orbit model*		INTEGER(0..31)	The most significant bits of parameters Time-of-Ephemeris and Time-of-Clock in seconds, scale factor 21600
e MSB	C-*Orbit model*		INTEGER(0..127)	The most significant bits of eccentricity, scale factor 2^{-8}
SqrtA MSB	C-*Orbit model*		INTEGER(0..63)	The most significant bits of Semi-Major Axis in (meters)$^{1/2}$, scale factor 2^{7}
Satellite Information		*1 to <maxGANSSSat>*		
>Sat ID	M		INTEGER(0..63)	Identifies the satellite and is equal to (SV ID No - 1).
>SV Health	M		BIT STRING(5)	Coded as defined in [39]
>IOD	M		BIT STRING(10)	
>GANSS Clock Model	M		9.2.1.90	
>GANSS Orbit Model	M		9.2.1.93	

Condition	Explanation
Orbit model	The IE shall be present if the *GANSS Orbit Model* IE indicates 'Keplerian Parameters'.

Range bound	Explanation
maxGANSSSat	Maximum number of satellites for which data is included in the IE.

NOTE 1 : The Non-Broadcast Indication allows to inform that the navigation model is not bit-to-bit the one broadcast by the satellite. If it is set to 1, the UE is informed that techniques such as data wiping off applied to the navigation model may not work for instance.

9.2.1.106 GANSS Signal ID

This IE defines a specific signal within a particular GANSS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
GANSS Signal ID	M		INTEGER(0..7,…)	Coded as defined in [18].

9.2.1.107 GANSS Transmission Time

This IE indicates the GANSS Transmission Time

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
GANSS Day	O		INTEGER(0..8191)	The sequential number of days from the origin of the GNSS system time (indicated by the GANSS_ID given in the *Requested Data Value* IE) modulo 8192 days (about 22 years).
GANSS TOD	M		INTEGER(0..86399)	GANSS Time of Day in seconds

9.2.1.108 IP Multicast Indication

The *IP Multicast Indication* IE indicates the IP multicast group information dedicated to an MBMS service and the CFN Offset, defined as the offset between MFN and CFN for a FACH. When Node B receives such an indication, if supported, it may join the corresponding IP multicast group. When Node B receives data frame from this IP multicast group, it shall consider the value of the CFN field in the data frame as MFN and calculate the actual CFN for the concerned FACH according to following equation:

CFN = (MFN – CFN Offset) mod 256.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Layer Address	M		9.2.1.63	An MBMS service corresponds to a dedicated IP multicast address.
Binding ID	M		9.2.1.4	Indicating multicast port.
CFN Offset	M		INTEGER (0..255)	

9.2.1.109 IP Multicast Data Bearer Indication

The *IP Multicast Data Bearer Indication* IE indicates whether the Node B is ready for receiving concerned MBMS service data through IP multicast transport bearer.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IP Multicast Data Bearer Indication			BOOLEAN	True: IP multicast data bearer is used. False: IP multicast data bearer is not used.

9.2.2 FDD specific parameters

9.2.2.a ACK-NACK Repetition Factor

The *ACK-NACK Repetiton Factor* IE indicates the number of consecutive repetitions of the ACK and NACK.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
ACK-NACK Repetition Factor			INTEGER (1..4,...)	Step: 1

9.2.2.b ACK Power Offset

The *ACK Power Offset* IE indicates Power offset used in the UL between the HS-DPCCH slot carrying HARQ ACK information and the associated DPCCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
ACK Power Offset			INTEGER (0..8,…)	According to mapping in ref. [9] subclause 4.2.1.

9.2.2.A Active Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence activation. For details see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CM Configuration Change CFN	M		CFN 9.2.1.7	
Transmission Gap Pattern Sequence Status		*0..<maxTGPS>*		
>TGPS Identifier	M		INTEGER (1..maxTGPS)	If the group is not present, none of the pattern sequences are activated. References an already defined sequence.
>TGPRC	M		INTEGER (0..511)	The number of transmission gap patterns within the Transmission Gap Pattern Sequence. "0"=Infinity
>TGCFN	M		CFN 9.2.1.7	Connection Frame Number of the first frame of the first pattern 1 within the Transmission Gap Pattern Sequence.

Range Bound	Explanation
maxTGPS	Maximum number of active pattern sequences. Value 6.

9.2.2.B Adjustment Period

The *Adjustment Period* IE defines the period to be used for power balancing.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Adjustment Period			INTEGER (1..256)	Unit: Frames

9.2.2.C Adjustment Ratio

The *Adjustment Ratio* IE *(Radj)* defines the convergence rate used for the associated Adjustment Period.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Adjustment Ratio			INTEGER (0..100)	Unit: None Range: 0..1 Step: 0.01

9.2.2.D AICH Power

The *AICH Power* IE indicates a power level (measured as the power per transmitted acquisition indicator when several AIs are transmitted in parallel) relative to the primary CPICH power configured in a cell. If Transmit Diversity is applied to the AICH, the *AICH Power* IE indicates the power offset between the linear sum of the power for the AICH on all branches and the Primary CPICH power configured in a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
AICH Power			INTEGER (-22..+5)	Unit: dB Range: -22 .. +5 dB Step: 1 dB

9.2.2.1 AICH Transmission Timing

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
AICH Transmission Timing			ENUMERATED (0, 1)	See parameter AICH_Transmission_Timing in ref. [7].

9.2.2.1A AP Preamble Signature

Void.

9.2.2.1B AP Sub Channel Number

Void.

9.2.2.1Ba Best Cell Portions

Best Cell Portions IE indicates the best received cell portions and their SIR values when Cell Portions are defined in the cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Best Cell Portions		*1..<maxnoofBestCellPortions>*		
>Cell Portion ID	M		9.2.2.1Ca	
>SIR Value	M		INTEGER (0..63)	According to mapping in [22] and [23]

Range Bound	Explanation
maxnoofBestCellPortions	Maximum number of reported Best Received Cell Portions

9.2.2.1Bb Bundling Mode Indicator

The Bundling Mode Indicator indicates whether the bundling shall be done or shall not be done for Iub.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Bundling Mode Indicator			ENUMERATED (Bundling, No bundling)	The value "Bundling" is applicable only when E-TTI indicates "2ms".

9.2.2.1C CD Sub Channel Numbers

Void.

9.2.2.1Ca Cell Portion ID

Cell Portion ID is the unique identifier for a cell portion within a cell. See [4].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Portion ID			INTEGER (0..63,…)	

9.2.2.1D Channel Assignment Indication

Void.

9.2.2.2 Chip Offset

The Chip Offset is defined as the radio timing offset inside a radio frame. The Chip offset is used as offset relative to the Primary CPICH timing for the DL DPCH or for the F-DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Chip Offset			INTEGER (0..38399)	Unit: chips

9.2.2.2A Closed Loop Timing Adjustment Mode

Indicates when the phase/amplitude adjustment is performed in the DL in relation to the receipt of the UL feedback command in case of closed loop mode transmit diversity on DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Closed Loop Timing Adjustment Mode			ENUMERATED (Offset1, Offset2, …)	According to ref. [10] subclause 7.1: "Offset1" = slot(j+1)mod15 "Offset2" = slot(j+2)mod15

9.2.2.3 Common Channels Capacity Consumption Law

Void.

9.2.2.3A Compressed Mode Deactivation Flag

The Compressed Mode Deactivation Flag indicates whether Compressed Mode shall be deactivated or not in the new RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Compressed Mode Deactivation Flag			ENUMERATED (Deactivate, Maintain Active)	

9.2.2.4 Compressed Mode Method

Void.

9.2.2.4A CPCH Allowed Total Rate

Void.

9.2.2.4B CPCH Scrambling Code Number

Void.

9.2.2.4C CPCH UL DPCCH Slot Format

Void.

9.2.2.4Ca CQI Power Offset

The *CQI Power Offset* IE indicates Power offset used in the UL between the HS-DPCCH slots carrying CQI information and the associated DPCCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CQI Power Offset			INTEGER (0..8,…)	According to mapping in ref. [9] subclause 4.2.1.

9.2.2.4Cb CQI Repetition Factor

The *CQI Repetiton Factor* IE indicates the number of consecutive repetitions of the CQI.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CQI Repetition Factor			INTEGER (1..4,...)	Step: 1

9.2.2.4D DCH FDD Information

The *DCH FDD Information* IE provides information for DCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DCH FDD Information		*1..<maxnoofDCHs>*			–	
>Payload CRC Presence Indicator	M		9.2.1.49		–	
>UL FP Mode	M		9.2.1.66		–	
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
>DCH Specific Info		*1..<maxnoofDCHs>*			–	
>>DCH ID	M		9.2.1.20		–	
>>Transport Format Set	M		9.2.1.59	For UL	–	
>>Transport Format Set	M		9.2.1.59	For DL	–	
>>Allocation/Retention Priority	M		9.2.1.1A		–	
>>Frame Handling Priority	M		9.2.1.30		–	
>>QE-Selector	M		9.2.1.50A		–	
>>Unidirectional DCH Indicator	O		9.2.1.68		YES	reject
>TNL QoS	O		9.2.1.58A		YES	ignore

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE

9.2.2.4E DCHs FDD To Modify

The *DCHs FDD To Modify* IE provides information for DCHs to be modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DCHs FDD To Modify		*1..<maxnoofDCHs>*			–	
>UL FP Mode	O		9.2.1.66		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
>Transport Bearer Request Indicator	M		9.2.1.62A		–	
>DCH Specific Info		*1..<maxnoofDCHs>*			–	
>>DCH ID	M		9.2.1.20		–	
>>Transport Format Set	O		9.2.1.59	For the UL.	–	
>>Transport Format Set	O		9.2.1.59	For the DL.	–	
>>Allocation/Retention Priority	O		9.2.1.1A		–	
>>Frame Handling Priority	O		9.2.1.30		–	
>>Unidirectional DCH Indicator	O		9.2.1.68		YES	reject
>TNL QoS	O		9.2.1.58A		YES	ignore

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE

9.2.2.4F DCH Indicator For E-DCH-HSDPA Operation

The DCH Indicator For E-DCH-HSDPA Operation parameter indicates whether *DCH Information* IE should be ignored in the message in which the *DCH Indicator For E-DCH-HSDPA Operation* IE is included.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DCH Indicator For E-DCH-HSDPA Operation			ENUMERATED (DCH not present)	

9.2.2.4G Transport Bearer Not Requested Indicator

The Transport Bearer Not Requested Indicator parameter indicates that a transport bearer shall not be established or may not to be established for a DCH or an E-DCH MAC-d flow.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Bearer Not Requested Indicator			ENUMERATED (Transport Bearer shall not be Established, Transport Bearer may not be Established)	

9.2.2.4H Transport Bearer Not Setup Indicator

The Transport Bearer Not Setup Indicator parameter indicates that a transport bearer will not be established for a DCH or an E-DCH MAC-d flow.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Bearer Not Setup Indicator			ENUMERATED (Transport Bearer Not Setup)	

9.2.2.5 D-Field Length

Void.

9.2.2.6 Dedicated Channels Capacity Consumption Law

Void.

9.2.2.7 Diversity Control Field

Void.

9.2.2.8 Diversity Indication

Void.

9.2.2.9 Diversity Mode

Define the diversity mode to be applied.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Diversity Mode			ENUMERATED (None, STTD, Closed loop mode 1, Not Used,…)	The *Diversity Mode* IE shall never be set to "Not Used". If received it shall be rejected.

9.2.2.10 DL DPCH Slot Format

Indicates the slot format used in DPCH in DL, accordingly to ref. [7].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL DPCH Slot Format			INTEGER (0..16,…)	

9.2.2.10A DL DPCH Timing Adjustment

The DL DPCH Timing Adjustment indicates that a timing adjustment of the related radio link is required or that an Initial DL DPCH Timing Adjustment has been performed by the Node B. It also indicates whether the timing adjustment consists of a timing advance or a timing delay with respect to the SFN timing. The adjustment always consists of 256 chips.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL DPCH Timing Adjustment			ENUMERATED (timing advance, timing delay)	The size of the timing adjustment is 256 chips.

9.2.2.11 DL frame type

Void.

9.2.2.12 DL or Global Capacity Credit

Void.

9.2.2.12A DL_power_averaging_window_size

The *DL_power_averaging_window_size* IE defines the window size when Limited Power Increase is used [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL_power_averaging_window_size			INTEGER (1..60)	Unit: inner loop power adjustments Range: 1..60 Step: 1 adjustment

9.2.2.12B DL Power Balancing Information

The *DL Power Balancing Information* IE provides information for power balancing to be activated in the relevant RL(s).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power Adjustment Type	M		9.2.2.27	
DL Reference Power	C-Common		DL Power 9.2.1.21	Power on DPCH or on F-DPCH
DL Reference Power Information	C-Individual	*1..<maxnoofRLs>*		
>RL ID	M		9.2.1.53	
>DL Reference Power	M		DL Power 9.2.1.21	Power on DPCH or on F-DPCH
Max Adjustment Step	C-CommonOrIndividual		9.2.2.20	
Adjustment Period	C-CommonOrIndividual		9.2.2.B	
Adjustment Ratio	C-CommonOrIndividual		9.2.2.C	

Condition	Explanation
Common	The IE shall be present if the *Power Adjustment Type* IE is set to "Common".
Individual	The IE shall be present if the *Power Adjustment Type* IE is set to "Individual".
CommonOrIndividual	The IE shall be present if the *Power Adjustment Type* IE is set to "Common" or 'Individual".

Range Bound	Explanation
maxnoofRLs	Maximum number of Radio Links for a UE

9.2.2.12C DL Power Balancing Activation Indicator

The *DL Power Balancing Activation Indicator* IE indicates that the power balancing is activated in the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Power Balancing Activation Indicator			ENUMERATED (DL Power Balancing Activated)	

9.2.2.12D DL Power Balancing Updated Indicator

The *DL Power Balancing Updated Indicator* IE indicates that the power balancing related parameters is updated in the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Power Balancing Updated Indicator			ENUMERATED (DL Power Balancing Updated)	

9.2.2.13 DL Scrambling Code

DL scrambling code to be used by the RL. One cell may have multiple DL scrambling codes available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Scrambling Code			INTEGER (0..15)	"0" = Primary scrambling code of the cell "1".."15" = Secondary scrambling code

9.2.2.13A DL TPC Pattern 01 Count

The *DL TPC Pattern 01 Count* IE contains the value of the parameter n, which is used for determining the DL TPC pattern on Radio Links marked with "first RLS" by the *First RLS indicator* IE before UL synchronisation is achieved.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL TPC Pattern 01 Count			INTEGER(0..30,…)	

9.2.2.13B DSCH FDD Information

Void.

9.2.2.13C DPC Mode

The *DPC Mode* IE indicates the DPC mode to be applied [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPC Mode			ENUMERATED (Mode0, Mode1, …)	"Mode0": The Node B shall estimate the UE transmitted TPC command and update the DL power in every slot "Mode1": The Node B shall estimate the UE transmitted TPC command over three slots and shall update the DL power in every three slots

9.2.2.13D DSCH FDD Common Information

Void.

9.2.2.13Da E-DCH FDD Information

The E-DCH *FDD Information* IE provides information for an E-DCH to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH MAC-d Flows Information	M		9.2.2.13M		–	
HARQ Process Allocation For 2ms Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.13Dn	If this IE is not included, scheduled transmission in all HARQ processes is allowed.	–	
E-DCH Maximum Bitrate	O		9.2.2.13T		–	
E-DCH Processing Overload Level	O		9.2.1.79		–	
E-DCH Reference Power Offset	O		9.2.2.13Y		–	
E-DCH Power Offset for Scheduling Info	O		9.2.1.85		YES	ignore
SixteenQAM UL Operation Indicator	O		9.2.2.88A		YES	reject

9.2.2.13DA E-DCH FDD Update Information

The *E-DCH FDD Update Information* IE provides information for E-DCH to be updated. At least one IE shall be present.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flow Specific Update Information		*0..<maxnoofEDCHMACdFlows>*		
>E-DCH MAC-d Flow ID	M		9.2.1.74	
>HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.13Dn	
HARQ Process Allocation For 2ms Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.13Dn	

Range bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of MAC-d flows.

9.2.2.13Db E-DCH FDD Information Response

The *E-DCH FDD Information Response* IE provides information for E-DCH MAC-d flows that have been established or modified. It also provides additional E-DCH information determined within the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH MAC-d Flow Specific Information Response		*0..<maxnoofEDCHMACdFlows>*			–	
>E-DCH MAC-d Flow ID	M		9.2.1.74		–	
>Binding ID	O		9.2.1.4		–	
>Transport Layer Address	O		9.2.1.63		–	
>HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.13Dn		–	
>Transport Bearer Not Setup Indicator	O		9.2.2.4H		YES	ignore
HARQ Process Allocation For 2ms Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.13Dn		–	

Range bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of MAC-d flows.

9.2.2.13Dc E-DCH FDD DL Control Channel Information

The *E-DCH FDD DL Control Channel Information* IE provides information for E-DCH specific DL Control Channels to be provided to UE via RRC signalling.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-AGCH And E-RGCH/E-HICH FDD Scrambling Code	O		DL Scrambling Code 9.2.2.13	Scrambling code on which E-AGCH, E-RGCH and E-HICH are transmitted.	–	
E-AGCH Channelisation Code	O		FDD DL Channelisation Code Number 9.2.2.14		–	
Primary E-RNTI	O		E-RNTI 9.2.1.75		–	
Secondary E-RNTI	O		E-RNTI 9.2.1.75		–	
E-RGCH/E-HICH Channelisation Code	O		FDD DL Channelisation Code Number 9.2.2.14		–	
E-RGCH Signature Sequence	O		INTEGER (0..maxnoofSigSeqE-RGHICH - 1)		–	
E-HICH Signature Sequence	O		INTEGER (0..maxnoofSigSeqE-RGHICH - 1)		–	
Serving Grant Value	O		INTEGER (0..37,38)	(0..37) indicates E-DCH serving grant index as defined in [32]; index 38 means zero grant	–	
Primary/Secondary Grant Selector	O		ENUMERATED (Primary, Secondary)	Indicates whether the Serving Grant Value is granted with a primary E-RNTI or a secondary E-RNTI	–	
E-RGCH Release Indicator	O		9.2.2.13Ic		–	
Default Serving Grant in DTX Cycle 2	O		INTEGER (0..37,38)	Serving Grant value to be used in DTX-Cycle-2. (0..37) indicates E-DCH serving grant index as defined in [32]; index 38 means zero grant	YES	ignore

Range bound	Explanation
maxnoofSigSeqE-RGHICH	Maximum number of Signature Sequences for E-RGCH/E-HICH.

9.2.2.13De E-DCH RL Indication

Indicates whether a RL is an E-DCH RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH RL Indication			ENUMERATED(E-DCH, non E-DCH)	

9.2.2.13Df E-DCH FDD Information to Modify

The *E-DCH FDD Information to Modify* IE is used for the modification of an E-DCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH MAC-d Flow Specific Information		*0..<maxnoofEDCHMACdFlows>*			–	
>E-DCH MAC-d Flow ID	M		9.2.1.74		–	
>Allocation/Retention Priority	O		9.2.1.1A		–	
>Transport Bearer Request Indicator	M		9.2.1.62A		–	
>TNL QoS	O		9.2.1.58A		–	
>Maximum Number Of Retransmissions For E-DCH	O		9.2.1.81		–	
>E-DCH HARQ Power Offset FDD	O		9.2.2.13Dk		–	
>E-DCH MAC-d Flow Multiplexing List	O		9.2.1.69		–	
>CHOICE *E-DCH Grant Type*	O				–	
>>E-DCH Non-Scheduled Transmission Grant						
>>>Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission	M		9.2.2.13Dm	If the *Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE is present, this IE shall be ignored	–	
>>>HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.13Dn		–	
>>>Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission	O		9.2.2.13Dr		YES	reject
>>E-DCH Scheduled Transmission Grant			NULL			
>Bundling Mode Indicator	O		9.2.2.1Bb		–	
>E-DCH Logical Channel To Add	O		E-DCH Logical Channel Information 9.2.1.71		–	
>E-DCH Logical Channel To Modify	O		9.2.1.72		–	
>**E-DCH Logical Channel To Delete**		*0..<maxnooflogicalchannels>*			–	
>>Logical Channel ID	M		9.2.1.80		–	
HARQ Process Allocation For 2ms Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.13Dn		–	
E-DCH Maximum Bitrate	O		9.2.2.13T		–	
E-DCH Processing Overload Level	O		9.2.1.79		–	
E-DCH Reference Power	O		9.2.2.13Y		–	

Offset						
MAC-e Reset Indicator	O		9.2.1.83		–	
E-DCH Power Offset for Scheduling Info	O		9.2.1.85		YES	ignore
SixteenQAM UL Operation Indicator	O		9.2.2.88A		YES	reject

Range bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows.
maxnooflogicalchannels	Maximum number of logical channels

9.2.2.13Dh E-DCH Transport Format Combination Set Information (E-TFCS Information)

Whereas the related Transport Block sizes are standardised in [32] this IE gives details on the referenced Transport Block Size Table, the E-DCH Minimum Set E-TFCI, the Reference E-TFCIs and configuration parameters used for the calculation of the gain factors β_{ec} and β_{ed} defined in [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-TFCI Table Index	M		INTEGER (0..1,..., 2..7)	Indicates which standardised E-TFCS Transport Block Size Table shall be used. The related tables are specified in [32].	–	
E-DCH Minimum Set E-TFCI	O		INTEGER (0..127)	For the concept of "E-DCH Minimum Set of TFCs" see [32] and [18].	–	
Reference E-TFCI Information		*1..<maxnoofRefETFCIs>*			–	
>Reference E-TFCI	M		INTEGER (0..127)		–	
>Reference E-TFCI Power Offset	M		9.2.2.13Dp	If the *Extended Reference E-TFCI Power Offset* IE is present, this IE shall be ignored	–	
>Extended Reference E-TFCI Power Offset	O		9.2.2.13Dq		YES	reject
E-TFCI Boost Information	O		9.2.2.88B		YES	reject
E-DPDCH Power Interpolation	O		BOOLEAN	True means that the E-DPDCH power interpolation formula shall be applied, False means that the E-DPDCH power extrapolation formula shall be applied for the computation of the gain factor β_{ed} according to [10]	YES	reject

Range Bound	Explanation
maxnoofRefETFCIs	Maximum number of signalled reference E-TFCIs

9.2.2.13Di E-TTI

The E-TTI parameter indicates the Transmission Time Interval for E-DPCH operation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-TTI			ENUMERATED (2ms, 10ms)	

9.2.2.13Dj E-DPCCH Power Offset

The E-DPCCH Power Offset is used to calculate the E-DPCCH gain factor β_{ec} as defined in [10], whereas β_{ec} is related to the power difference between DPCCH and E-DPCCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DPCCH Power Offset			INTEGER (0..8)	According to mapping in ref. [9] subclause 4.2.1.3.

9.2.2.13Dk E-DCH HARQ Power Offset FDD

The E-DCH HARQ Power Offset FDD is used to calculate the unquantised gain factor for an E-TFC ($\beta_{ed,j,uq}$)as defined in [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH HARQ Power Offset FDD			INTEGER (0..6)	According to mapping in ref. [9] subclause 4.2.1.3.

9.2.2.13Dl E-DCH MAC-d Flow Multiplexing List

Void.

9.2.2.13Dm Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission

The Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission indicates the number of bits allowed to be included in a MAC-e PDU per E-DCH MAC-d flow configured for non-scheduled transmissions. If the range of the *Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE is insufficient to represent the value to be sent to the Node B, the *Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE shall be used to represent the value to be sent to the Node B, see section 9.2.2.13Dr.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission			INTEGER (1..19982)	

9.2.2.13Dn HARQ Process Allocation For 2ms TTI

The HARQ Process Allocation for 2ms TTI indicates those HARQ processes that are allowed. MAC-d PDU"s for a MAC-d flow are only allowed to be transmitted in those processes for which the bit is set to "1".

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HARQ Process Allocation For 2ms TTI			BIT STRING (8)	The first Bit corresponds to HARQ process ID = 0, the second bit corresponds to HARQ process ID = 1, etc. The HARQ process ID for 2ms TTI is defined in [32], chapter 11.8.1.3.

9.2.2.13Dp Reference E-TFCI Power Offset

The Reference E-TFCI Power Offset is used to calculate the reference E-TFC gain factor $\beta_{ed,ref}$ as defined in [10]. If the range of the *Reference E-TFCI Power Offset* IE is insufficient to represent the value to be sent to the Node B, the *Extended Reference E-TFCI Power Offset* IE shall be used to represent the value to be sent to the Node B, see section 9.2.2.13Dq.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Reference E-TFCI Power Offset			INTEGER (0..29)	According to mapping in ref. [9] subclause 4.2.1.3

9.2.2.13Dq Extended Reference E-TFCI Power Offset

The *Extended Reference E-TFCI Power Offset* IE shall be used if the range of the *Reference E-TFCI Power Offset* IE (see section 9.2.2.13Dp) is insufficient to represent the value of the Reference E-TFCI Power Offset to be sent to the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended Reference E-TFCI Power Offset			INTEGER (30..31,…)	According to mapping in ref. [9] subclause 4.2.1.3

9.2.2.13Dr Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission

The *Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE shall be used if the range of the *Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE (see section 9.2.2.13Dm) is insufficient to represent the value of the Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission to be sent to the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission			INTEGER (19983..22978,…)	

9.2.2.13E Enhanced DSCH PC

Void.

9.2.2.13F Enhanced DSCH PC Counter

Void.

9.2.2.13G Enhanced DSCH PC Indicator

Void.

9.2.2.13H Enhanced DSCH PC Wnd

Void.

9.2.2.13I Enhanced DSCH Power Offset

Void.

9.2.2.13Ia E- RGCH/E-HICH Code Information

This parameter defines the codes which will be assigned for E- RGCH and E-HICH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *replaceremove*	M			
>replace				
>>E-RGCH/E-HICH Code		*1..<MaxnoofERGCHEHICHs>*		
>>>Code Number	M		FDD DL Channelisation Code Number 9.2.2.14	
>remove			NULL	

Range Bound	Explanation
MaxnoofERGCHEHICHs	Maximum number of E-RGCH/E-HICH channelisation codes for one cell.

9.2.2.13Ib E- AGCH Code Information

This parameter defines the codes which will be assigned for E- AGCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *replaceremove*	M			
>replace				
>>E-AGCH Code		*1..<MaxnoofEAGCHs>*		
>>>Code Number	M		FDD DL Channelisation Code Number 9.2.2.14	
>remove			NULL	

Range Bound	Explanation
MaxnoofEAGCHs	Maximum number of E-AGCH chanellisation codes for one cell.

9.2.2.13Ic E-RGCH Release Indicator

Indicates the E-RGCH is released.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-RGCH Release Indicator			ENUMERATED (E-RGCH released)	

9.2.2.13Id E-AGCH Power Offset

The *E-AGCH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when F-DPCH is configured. When F-DPCH is configured, the *E-AGCH Power Offset* IE indicates the Power offset relative to the power of transmitted TPC bits on the F-DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-AGCH Power Offset			INTEGER (0…255,…)	Unit: dB Range: -32 .. +31.75 dB Step: 0.25 dB

9.2.2.13Ie E-RGCH Power Offset

The *E-RGCH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when F-DPCH is configured. When F-DPCH is configured, the *E-RGCH Power Offset* IE indicates the Power offset relative to the power of transmitted TPC bits on the F-DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-RGCH Power Offset			INTEGER (0…255,…)	Unit: dB Range: -32 .. +31.75 dB Step: 0.25 dB

9.2.2.13If E-HICH Power Offset

The *E-HICH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when F-DPCH is configured. When F-DPCH is configured, the *E-HICH Power Offset* IE indicates the Power offset relative to the power of transmitted TPC bits on the F-DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-HICH Power Offset			INTEGER (0…255,…)	Unit: dB Range: -32 .. +31.75 dB Step: 0.25 dB

9.2.2.13Ig E-RGCH 2-Index-Step Threshold

The E-RGCH 2-index-step-threshold IE is used to determine the Serving Grant.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-RGCH 2-Index-Step Threshold			INTEGER (0..37)	Refers to an index in the "SG-Table" (see [32]).

9.2.2.13Ih E-RGCH 3-Index-Step Threshold

The E-RGCH 3-index-step-threshold IE is used to determine the Serving Grant.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-RGCH 3-Index-Step Threshold			INTEGER (0..37)	Refers to an index in the "SG-Table" (see [32]).

9.2.2.13J E-DCH Capability

Void

9.2.2.13Ja E-DCH Capacity Consumption Law

The capacity consumption law indicates to the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the RL/RLS situation and the number of uplink E-DPDCHs and their spreading factors. The reference spreading factor and number of E-DPDCH is signalled using the *Maximum Set of E-DPDCHs* IE.

This capacity consumption law indicates the consumption law to be used with the following procedures :

- Radio Link Setup
- Radio Link Addition
- Radio Link Reconfiguration
- Radio Link Deletion

For the Radio Link Setup and Radio Link Addition procedures, the cost given in the consumption law shall be debited from the Capacity Credit, whereas it shall credited to the Capacity Credit for the Radio Link Deletion procedure. For the Radio Link Reconfiguration procedure, the difference of the consumption cost for the new spreading factor and the consumption cost for the old spreading factor shall be debited from the Capacity Credit (or credited when this difference is negative).

If the modelling of the internal resource capability of the Node B is modelled independently for the Uplink and Downlink, the DL cost shall be applied to the DL or Global Capacity Credit and the UL Cost shall be applied to the UL Capacity Credit. If it is modelled as shared resources, both the DL costs and the UL costs shall be applied to the DL or Global Capacity Credit.

For a Radio Link creating a Radio Link Set (first RL of a RLS), the cost for the RL (cost 2) and RLS (cost 1) shall be taken into account. When adding a Radio Link to a Radio Link Set, only the RL cost (cost 2) shall be taken into account.
In the case where multiple Radio Links are established in one procedure, for every created Radio Link Set, the first Radio Link is always the Radio Link with the lowest repetition number.

The costs given in the consumption law are the costs per channelization code/no of E-DPDCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SF Allocation Law		*1..<maxnoofCombEDPDCH>*		For each SF, cost of its allocation, in decending order: the first instance corresponds to multicode configuration 2*SF2+2*SF4, the second to 2*SF2, the third to 2*SF4, the fourth to singlecode configuration SF = 4, the fifth to SF = 8, the sixth to SF16, the seventh to SF32 and the eight to SF64 and so on.
>UL Cost 1	M		INTEGER (0..65535)	This is the cost of a RLS
>UL Cost 2	M		INTEGER (0..65535)	This is the cost of a RL
DL Cost 1	O		INTEGER (0..65535)	This is the cost of a RLS. If not present, zero cost shall be applied. .
DL Cost 2	O		INTEGER (0..65535)	This is the cost of a RL. If not present, zero cost shall be applied.

Range Bound	Explanation
maxnoofCombEDPDCH	Maximum number of Configurations in the *Maximum Set of E-DPDCH* IE

9.2.2.13K E-DCH Logical Channel Information

Void

9.2.2.13L E-DCH Logical Channel To Modify

Void

9.2.2.13M E-DCH MAC-d Flows Information

The *E-DCH MAC-d Flows Information* IE is used for the establishment of E-DCH MAC-d flows.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH MAC-d Flow Specific Information		*1..<maxnoofEDCHMACdFlows>*			–	
>E-DCH MAC-d Flow ID	M		9.2.1.74		–	
>Allocation/Retention Priority	M		9.2.1.1A		–	
>TNL QoS	O		9.2.1.58A		–	
>Payload CRC Presence Indicator	M		9.2.1.49		–	
>Maximum Number Of Retransmissions For E-DCH	M		9.2.1.81		–	
>E-DCH HARQ Power Offset FDD	M		9.2.2.13Dk		–	
>E-DCH MAC-d Flow Multiplexing List	O		9.2.1.69		–	
>CHOICE *E-DCH Grant Type*	M				–	
>>*E-DCH Non-Scheduled Transmission Grant*						
>>>Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission	M		9.2.2.13Dm	If the *Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE is present, this IE shall be ignored	–	
>>>HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.13Dn	If this IE is not included, transmission in all HARQ processes is allowed.	–	
>>>Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission	O		9.2.2.13Dr		YES	reject
>>*E-DCH Scheduled Transmission Grant*			NULL			
>Bundling Mode Indicator	O		9.2.2.1Bb		–	
>E-DCH Logical Channel Information	M		9.2.1.71		–	
>Transport Bearer Not Requested Indicator	O		9.2.2.4G		YES	ignore

Range Bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows

9.2.2.13N E-DCH MAC-d Flows To Delete

Void

9.2.2.13O E-DCH MAC-d Flow ID

Void

9.2.2.13P E-RNTI

Void

9.2.2.13Q E-DCH DDI Value

Void

9.2.2.13R E-DCH Provided Bit Rate Value

Void

9.2.2.13S E-DCH Provided Bit Rate Value Information

Void

9.2.2.13T E-DCH Maximum Bitrate

The E-DCH Maximum Bitrate parameter indicates the Maximum Bitrate for an E-DCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Maximum Bitrate			INTEGER (0..5742,…, 5743..11498)	Bitrate on transport block level. Unit is kbits per second.

9.2.2.13U E-DCH Processing Overload Level

Void

9.2.2.13V E-DCH TTI Capability

This parameter defines the E-DCH TTI Capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH TTI2ms Capability			BOOLEAN	True = TTI 10ms and 2ms supported for E-DCH False = only TTI 10ms supported for E-DCH

9.2.2.13W E-DCH SF Capability

This parameter defines the E-DCH Capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH SF Capability			ENUMERATED (sf64, sf32, sf16, sf8, sf4, 2sf4, 2sf2, 2sf2and2sf4,…)	Min SF supported by the cell in E-DCH

9.2.2.13X E-DCH HARQ Combining Capability

This parameter defines the E-DCH HARQ Combining capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH HARQ Combining Capability			ENUMERATED (IR Combining Capable, Chase Combining Capable, IR and Chase Combining Capable)	

9.2.2.13Y E-DCH Reference Power Offset

The E-DCH Reference Power Offset is used to estimate the E-DPDCH power from E-TFCI without decoding MAC-e PDUs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Reference Power Offset			INTEGER (0..6)	According to mapping in ref. [9] subclause 4.2.1.3.

9.2.2.13Z E-DCH Power Offset for Scheduling Info

Void

9.2.2.14 FDD DL Channelisation Code Number

The DL Channelisation Code Number indicates the DL Channelisation Code number for a specific DL physical channel.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD DL Channelisation Code Number			INTEGER (0..511)	According to the mapping in [9]. The maximum value is equal to the DL spreading factor –1.

9.2.2.14A FDD DL Code Information

The *FDD DL Code Information* IE provides DL Code information for the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD DL Code Information		*1..<maxnoofCodes>*		
>DL Scrambling Code	M		9.2.2.13	
>FDD DL Channelisation Code Number	M		9.2.2.14	
>Transmission Gap Pattern Sequence Code Information	O		9.2.2.53B	

Range Bound	Explanation
maxnoofCodes	Maximum number of DL code information

9.2.2.14B FDD S-CCPCH Frame Offset

The *FDD S-CCPCH Frame Offset* IE represents a frame offset between the concerned S-CCPCH"s CFN (Connection Frame Number) relatively to the P-CCPCH"s SFN (System Frame Number) of the respective cell. The *FDD S-CCPCH Frame Offset* IE shall be the constant difference between the S-CCPCH"s CFN and the least significant 8 bits of the SFN (System Frame Number) on Uu.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD S-CCPCH Frame Offset			ENUMERATED (1, 2, 4,…)	Offset in frames (corresponding to 10msec, 20msec or 40msec offset in time)

9.2.2.15 FDD SCCPCH Offset

The Secondary CCPCH offset is defined as the time offset towards the Primary CCPCH in the cell. The offset is a multiple of 256 chips.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD SCCPCH Offset			INTEGER (0..149)	Unit: chip Range: 0..38144 chips Step: 256 chips See ref. [7]

9.2.2.16 FDD TPC DL Step Size

This parameter indicates step size for the DL power adjustment.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD TPC Downlink Step Size			ENUMERATED (0.5, 1, 1.5, 2,…)	Unit: dB

9.2.2.16a F-DPCH Capability

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
F-DPCH Capability			ENUMERATED (F-DPCH Capable, F-DPCH Non-Capable)	

9.2.2.16A First RLS Indicator

The *First RLS Indicator* IE indicates if a specific Radio Link and all Radio Links which are part of the same Radio Link Set, shall be considered as the first radio links established towards the UE or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
First RLS Indicator			ENUMERATED (First RLS, Not First RLS, …)	

9.2.2.17 Gap Period

Void.

9.2.2.18 Gap Position Mode

Void.

9.2.2.18a HARQ Preamble Mode

The *HARQ Preamble Mode* IE is used as described as in ref [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HARQ Preamble Mode			ENUMERATED (mode0, mode1)	"mode0" means HARQ Preamble Mode =0 "mode1" means HARQ Preamble Mode =1

9.2.2.18b HARQ Preamble Mode Activation Indicator

The HARQ Preamble Activation Indicator indicates if the configured HARQ Preamble Mode has been activated in the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HARQ Preamble Mode Activation Indicator			ENUMERATED(HARQ Preamble Mode Activated).	

9.2.2.18ba HARQ Info for E-DCH

The E-DCH HARQ Info is used to indicate the use of redundancy version (RV) for the EDCH HARQ transmissions.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
HARQ Info for E-DCH			ENUMERATED (rv0, rvtable)	"rv0" indicates that the UE will only use E_DCH RV index 0. "rvtable" indicates that the UE will use an RSN based RV index as specified in [8]

9.2.2.18c Logical channel ID

Void

9.2.2.18A Limited Power Increase

The parameter is used for a more efficient use of the inner loop DL power control for non real time data.

If the limited power increase is used, the Node B shall use the limited power increase algorithm as specified in [10], subclause 5.2.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Limited Power Increase			ENUMERATED (Used, Not Used)	

9.2.2.18B Inner Loop DL PC Status

The *Inner Loop DL PC Status* IE indicates whether inner loop DL control shall be active or inactive for all radio links associated with the context identified by the *Node B Communication Context Id* IE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Inner Loop DL PC Status			ENUMERATED (Active, Inactive)	

9.2.2.18C IPDL FDD Parameters

The *IPDL FDD Parameters* IE provides information about IPDL to be applied for FDD when activated.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IP SpacingFDD	M		ENUMERATED (5, 7, 10, 15, 20, 30, 40, 50,…)	See [10]
IP Length	M		ENUMERATED (5, 10)	See [10]
Seed	M		INTEGER (0..63)	See [10]
Burst Mode Parameters	O		9.2.1.5A	
IP Offset	M		INTEGER (0..9)	See [10]

9.2.2.18Ca HS-DSCH configured indicator

The *HS-DSCH Configured Indicator* IE indicates the configuration of HS-DSCH for the UE. The *HS-DSCH Configured Indicator* IE shall be used for the configuration of the E-DPDCH IQ branch mapping [9].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
HS-DSCH Configured Indicator			ENUMERATED (HS-DSCH configured, HS-DSCH not configured)	Indicator of the HS-DSCH forconfiguration of the E-DPDCHs IQ branch mapping [9].

9.2.2.18D HS-DSCH FDD Information

The *HS-DSCH FDD Information* IE is used for initial addition of HS-DSCH information to a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flows Information	M		9.2.1.31IA		–	
UE Capabilities Information		*1*			–	
>HS-DSCH Physical Layer Category	M		9.2.1.31Ia		–	
MAC-hs Reordering Buffer Size for RLC-UM	M		9.2.1.38Ab		–	
CQI Feedback Cycle k	M		9.2.2.21B		–	
CQI Repetition Factor	C-CQICyclek		9.2.2.4Cb		–	
ACK-NACK Repetition Factor	M		9.2.2.a		–	
CQI Power Offset	M		9.2.2.4Ca		–	
ACK Power Offset	M		9.2.2.b		–	
NACK Power Offset	M		9.2.2.23a		–	
HS-SCCH Power Offset	O		9.2.2.18I		–	
Measurement Power Offset	O		9.2.2.21C		–	
HARQ Preamble Mode	O		9.2.2.18a		YES	ignore
MIMO Activation Indicator	O		9.2.2.71		YES	reject
HS-DSCH MAC-d PDU Size Format	O		9.2.1.31ID	If not present, "Indexed MAC-d PDU Size" shall be used.	YES	reject
Sixtyfour QAM Usage Allowed Indicator	O		9.2.2.74A		YES	ignore

Condition	Explanation
CQICyclek	The IE shall be present if the *CQI Feedback Cycle k* IE is set to a value greater than 0.

9.2.2.18E HS-DSCH FDD Information Response

The HS-DSCH Information Response provides information for HS-DSCH that have been established or modified. It also provides additional HS-DSCH information determined within the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information Response		*0..<maxnoofMACdFlows>*			–	
>HS-DSCH MAC-d Flow ID	M		9.2.1.31I		–	
>Binding ID	O		9.2.1.4		–	
>Transport Layer Address	O		9.2.1.63		–	
>HS-DSCH Initial Capacity Allocation	O		9.2.1.31Ha		–	
HS-SCCH Specific Information Response		*0..<maxnoofHSSCCHcodes>*			–	
>Code Number	M		INTEGER (0..127)		–	
HARQ Memory Partitioning	O		9.2.1.102		–	
HARQ Preamble Mode Activation Indicator	O		9.2.2.18b		YES	ignore
MIMO N/M Ratio	O		9.2.2.96		YES	ignore
SixtyfourQAM DL Usage Indicator	O		9.2.2.74B		YES	ignore

Range Bound	Explanation
maxnoofMACdFlows	Maximum number of HS-DSCH MAC-d flows
maxnoofHSSCCHcodes	Maximum number of HS-SCCH codes

9.2.2.18Ea HS-DSCH FDD Update Information

The *HS-DSCH FDD Update Information* IE provides information for HS-DSCH to be updated. At least one IE shall be present.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-SCCH Code Change Indicator	O		9.2.1.31K		–	
CQI Feedback Cycle k	O		9.2.2.21B		–	
CQI Repetition Factor	O		9.2.2.4Cb		–	
ACK-NACK Repetition Factor	O		9.2.2.a		–	
CQI Power Offset	O		9.2.2.4Ca		–	
ACK Power Offset	O		9.2.2.b		–	
NACK Power Offset	O		9.2.2.23a		–	
HS-PDSCH Code Change Indicator	O		9.2.1.31M		YES	ignore

9.2.2.18Eb HS-DSCH Serving Cell Change Information

The *HS-DSCH Serving Cell Change Information* IE contains information which is used in HS-DSCH Serving Cell change.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-PDSCH RL ID	M		RL ID 9.2.1.53		–	
HS-DSCH Information	O		HS-DSCH FDD Information 9.2.2.18D		–	
HS-DSCH-RNTI	M		9.2.1.31J		–	
Continuous Packet Connectivity HS-SCCH less Information	O		9.2.2.68		YES	reject

9.2.2.18Ec HS-DSCH Serving Cell Change Information Response

The *HS-DSCH Serving Cell Change Information Response* IE contains information which is used in HS-DSCH Serving Cell change.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE *Serving Cell Change*					–	
>*Successful*						
>>HS-DSCH FDD Information Response	M		9.2.2.18E		–	
>>Continuous Packet Connectivity HS-SCCH less Information Response	O		9.2.2.69		YES	ignore
>*Unsuccessful*						
>>Cause	M		9.2.1.6		–	

9.2.2.18Ed E-DCH Serving Cell Change Information Response

The *E-DCH Serving Cell Change Information Response* IE contains information which is used in E-DCH Serving Cell change.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Serving Cell Change*				
>*Successful*				
>>RL Information Response		*0..<maxnoofRLs>*		
>>>RL ID	M		9.2.1.53	
>>>E-DCH FDD DL Control Channel Information	M		9.2.2.13Dc	
>*Unsuccessful*				
>>Cause	M		9.2.1.6	

Range bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE

9.2.2.18F HS-PDSCH FDD Code Information

This parameter defines the codes which will be assigned for HS-PDSCHs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Number Of HS-PDSCH Codes	M		INTEGER (0..maxHS-PDSCHCodeNrComp-1)	
Start Code Number	C-NumCodes		INTEGER (1..maxHS-PDSCHCodeNrComp-1)	

Condition	Explanation
NumCodes	The IE shall be present if the *Number Of HS-PDSCH Codes* IE is set to a value greater than 0.

Range Bound	Explanation
MaxHS-PDSCHCodeNrComp	Maximum number of codes at the defined spreading factor, within the complete code tree

9.2.2.18G HS-SCCH FDD Code Information

This parameter defines the codes which will be assigned for HS-SCCH. The Node B will assign codes for HS-SCCHs among these codes when it sets up a HS-DSCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *replaceremove*	M			
>replace				
>>HS-SCCH Code		*1..<MaxnoofHSSCCHs>*		
>>>Code Number	M		INTEGER (0..maxHS-SCCHCodeNrComp-1)	
>remove			NULL	

Range Bound	Explanation
MaxnoofHSSCCHs	Maximum number of HS-SCCHs for one cell.
MaxHS-SCCHCodeNrComp	Maximum number of codes at the defined spreading factor, within the complete code tree

9.2.2.18H HS-SCCH ID

Void.

9.2.2.18I HS-SCCH Power Offset

The *HS-SCCH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when FDPCH is configured. When F-DPCH is configured, the *HS-SCCH Power Offset* IE indicates the Power offset relative to the power of transmitted TPC bits on the F-DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-SCCH Power Offset			INTEGER (0…255)	Unit: dB Range: -32 .. +31.75 dB Step: 0.25 dB

9.2.2.18K Initial DL DPCH Timing Adjustment Allowed

The *Initial DL DPCH Timing Adjustment Allowed* IE indicates that the Node B is allowed to perform a timing adjustment (either a timing advance or a timing delay with respect to the SFN timing) when establishing a radio link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Initial DL DPCH Timing Adjustment Allowed			ENUMERATED (initial DL DPCH Timing Adjustment Allowed)	

9.2.2.19 Max Adjustment Period

Void.

9.2.2.20 Max Adjustment Step

Defines the maximum allowed value for the change of DL power level during a certain number of slots that can be utilised by the downlink power balancing algorithm. *Max Adjustment Step* IE defines a time period, in terms of number of slots, in which the accumulated power adjustment shall be maximum 1dB. This value does not include the DL inner loop PC adjustment.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max Adjustment Step			INTEGER (1..10)	Unit: Slots

9.2.2.20A Max Number Of PCPCHs

Void.

9.2.2.20B Max Number Of UL E-DPDCHs

Void.

9.2.2.20C Maximum Set of E-DPDCHs

The Maximum Set of E-DPDCHs as defined in [8]. Needed by rate matching algorithm.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Set of E-DPDCHs			ENUMERATED (vN256, vN128, vN64, vN32, vN16, vN8, vN4, v2xN4, v2xN2, v2xN2plus2xN4,…, v2xM2plus2xM4)	

9.2.2.20D Maximum Number Of Retransmissions For E-DCH

Void

9.2.2.20E MAC-es Guaranteed Bit Rate

Void

9.2.2.20F MAC-e Reset Indicator

Void

9.2.2.21 Maximum Number Of UL DPDCHs

Maximum number of uplink DPDCHs to be used during the connection. Needed by the rate matching algorithm.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max Number Of UL DPDCHs			INTEGER (1..6)	

9.2.2.21a Maximum Target Received Total Wide Band Power

The Maximum Target Received Total Wide Band Power indicates the maximum target UL interference for a certain cell under CRNC, including received wide band power from all sources.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Target Received Total Wide Band Power			INTEGER (0..621)	The Value mapping is according to mapping for measurement type "Received Total Wide Band Power" in [22].

9.2.2.21b Target Non-serving E-DCH to Total E-DCH Power Ratio

The Target Non-serving E-DCH to Total E-DCH Power Ratio indicates the target ratio of the received E-DCH power from non-serving UEs to the received total E-DCH power.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Target Non-serving E-DCH to Total E-DCH Power Ratio			INTEGER (0..100)	Unit: % Range: 0..100 % Step: 1 %

9.2.2.21A Maximum PDSCH Power

Void.

9.2.2.21B CQI Feedback Cycle k

The *CQI Feedback Cycle k* IE provides the duration of the CQI feedback cycle.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CQI Feedback Cycle k			ENUMERATED (0, 2, 4, 8, 10, 20, 40, 80, 160,…, 16, 32, 64)	Unit ms

9.2.2.21C Measurement Power Offset

The *Measurement Power Offset* IE is used as described in ref [10] subclause 6A.2.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Power Offset			INTEGER (-12..26)	Unit: dB Range: -6..13dB Step: 0.5dB

9.2.2.21D MICH Mode

The number of Notification Indicators (NIs) transmitted in a MICH frame.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MICH Mode			ENUMERATED (18, 36, 72, 144,…)	Number of NIs per frame

9.2.2.22 Minimum UL Channelisation Code Length

Minimum UL channelisation code length (spreading factor) of a DPDCH which is used during the connection. Needed by rate matching algorithm.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Min UL Channelisation Code Length			ENUMERATED (4, 8, 16, 32, 64, 128, 256,…)	

9.2.2.22a Min UL Channelisation Code Length For E-DCH FDD

Void.

9.2.2.23 Multiplexing Position

Multiplexing Position specifies whether fixed or flexible positions of transport channels shall be used in the physical channel.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Multiplexing Position			ENUMERATED (Fixed, Flexible)	

9.2.2.23a NACK Power Offset

The *NACK Power Offset* IE indicates Power offset used in the UL between the HS-DPCCH slot carrying HARQ NACK information and the associated DPCCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
NACK Power Offset			INTEGER (0..8,…)	According to mapping in ref. [9] subclause 4.2.1.

9.2.2.23A N_EOT

Void.

9.2.2.23B NF_max

Void.

9.2.2.23C N_Start_Message

Void.

9.2.2.23D Number Of Reported Cell Portions

Number of Reported Cell Portions indicates the number of Best Cell Portions values which shall be included in the measurement report.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Number Of Reported Cell Portions			INTEGER (1..64,…)	

9.2.2.24 Pattern Duration (PD)

Void.

9.2.2.24A PCP Length

Void.

9.2.2.25 PDSCH Code Mapping

Void.

9.2.2.26 PICH Mode

The number of paging indicators (PIs) in a PICH frame.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PICH Mode			ENUMERATED (18, 36, 72, 144,…)	Number of PIs per frame

9.2.2.27 Power Adjustment Type

Defines the characteristic of the power adjustment.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power Adjustment Type			ENUMERATED (None, Common, Individual)	

9.2.2.28 Power Control Mode

Void.

9.2.2.29 Power Offset

This IE defines a power offset relative to the Downlink transmission power of a DPDCH in case the Node B Communication Context is configured to use DPCH in the downlink or relative to a Secondary CCPCH data field.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power Offset			INTEGER (0..24)	Unit: dB Range: 0..6 dB Step: 0.25 dB

9.2.2.29A Power_Raise_Limit

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power_Raise_Limit			INTEGER (0..10)	Unit: dB Range: 0..10 dB Step: 1 dB

9.2.2.30 Power Resume Mode

Void.

9.2.2.31 Preamble Signature

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Preamble Signatures			BIT STRING (16)	Each bit indicates availability for a signature, where the signatures are numbered "signature 0" up to "signature 15". The value 1 of a bit indicates that the corresponding signature is available and the value 0 that it is not available.The order of bits is to be interpreted according to subclause 9.3.4. See also [9].

9.2.2.32 Preamble Threshold

The IE sets the threshold for preamble detection. The ratio between received preamble power during the preamble period and interference level shall be above this threshold in order to be acknowledged.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Preamble Threshold			INTEGER (0..72)	Unit: dB Range: -36 .. 0 dB Step: 0.5 dB

9.2.2.33 Primary CPICH Power

The Primary CPICH power is the power that shall be used for transmitting the P-CPICH in a cell. The reference point is the antenna connector. If Transmit Diversity is applied to the Primary CPICH, the Primary CPICH power is the linear sum of the power that is used for transmitting the Primary CPICH on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary CPICH Power			INTEGER (-100..500)	Value = Primary CPICH Power/10 Unit: dBm Range: -10.0..+50.0 dBm Step: 0.1 dB

9.2.2.33A Primary CPICH Usage For Channel Estimation

The *Primary CPICH Usage For Channel Estimation* IE indicates whether the Primary CPICH may be used for channel estimation or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary CPICH Usage For Channel Estimation			ENUMERATED (Primary CPICH may be used, Primary CPICH shall not be used)	

9.2.2.34 Primary Scrambling Code

The Primary scrambling code to be used in the cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary Scrambling Code			INTEGER (0..511)	

9.2.2.35 Propagation Delay

The Propagation delay is the one-way propagation delay of the radio signal from the MS to the Node B. If the range of the *Propagation Delay* IE is insufficient to represent the measured value, the *Propagation Delay* IE shall be set to its maximum value, and the *Extended Propagation Delay* IE shall be used to represent the propagation delay value, see subclause 9.2.2.35A.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Propagation Delay			INTEGER (0..255)	Unit: chip Range: 0..765 chips Step: 3 chips

9.2.2.35A Extended Propagation Delay

The Extended Propagation delay is the one-way propagation delay of the radio signal from the MS to the Node B. It shall be used if the *Propagation Delay* IE (see 9.2.2.35) cannot represent the measured value, due to range limitation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended Propagation Delay			INTEGER (255..1023)	Continuation of intervals as defined in [22]. Unit: chip Range: 765..3069 chips Step: 3 chips

9.2.2.36 QE-Selector

Void.

9.2.2.36A Qth Parameter

Void.

9.2.2.37 RACH Slot Format

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RACH Slot Format			ENUMERATED (0..3,...)	See ref. [7].

9.2.2.38 RACH Sub Channel Numbers

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RACH Sub Channel Numbers			BIT STRING (12)	Each bit indicates availability for a subchannel, where the subchannels are numbered "subchannel 0" to "subchannel 11". The value 1 of a bit indicates that the corresponding subchannel is available and the value 0 indicates that it is not available.The order of bits is to be interpreted according to subclause 9.3.4.

9.2.2.39 RL Set ID

The RL Set ID uniquely identifies one RL Set within a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RL Set ID			INTEGER (0..31)	

9.2.2.39a RL Specific E-DCH Information

The *RL Specific E-DCH Information* IE provides RL specific E-DCH Information.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RL Specific E-DCH Information		*1..<maxnoofEDCHMACdFlows>*		
>E-DCH MAC-d Flow ID	M		9.2.1.74	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.
E-AGCH Power Offset	O		9.2.2.13Id	
E-RGCH Power Offset	O		9.2.2.13Ie	
E-HICH Power Offset	O		9.2.2.13If	

Range Bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows

9.2.2.39A Received Total Wide Band Power

The Received total wide band power indicates the UL interference at a certain cell under CRNC, see ref. [4].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Received Total Wide Band Power			INTEGER (0..621)	According to mapping in [22].

9.2.2.39B Reference Received Total Wide Band Power

When sent by the CRNC, the Reference Received Total Wide Band Power indicates the reference UL interference (received noise level) for a certain cell under CRNC. This value may be used for E-DCH scheduling in the Node B.

When reported by the Node B, the Reference Received Total Wide Band Power indicates the reference UL interference (received noise level as an estimate of the noise floor) estimate from the Node B. This value may be used, e.g. for admission or congestion control in the CRNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Reference Received Total Wide Band Power			INTEGER (0..621)	The Value mapping is according to mapping for measurement type "Received Total Wide Band Power" in [22].

9.2.2.39C Reference Received Total Wide Band Power Reporting

The Reference Received Total Wide Band Power Reporting controls the indication of the Reference Received Total Wide Band Power estimate from the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Reference Received Total Wide Band Power Reporting			ENUMERATED (Reference Received Total Wide Band Power Requested)	

9.2.2.39D Reference Received Total Wide Band Power Support Indicator

The Reference Received Total Wide Band Power Support Indicator indicates whether indication of Reference Received Total Wide Band Power is supported by the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Reference Received Total Wide Band Power Support Indicator			ENUMERATED (Indication of Reference Received Total Wide Band Power supported)	

9.2.2.40 S-Field Length

Void.

9.2.2.40A Scheduling Information

Void

9.2.2.41 Scrambling Code Change

Void.

9.2.2.42 Scrambling Code Number

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Scrambling Code Number			INTEGER (0..15)	Identification of scrambling code see ref. [9].

9.2.2.43 Secondary CCPCH Slot Format

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Secondary CCPCH Slot Format			INTEGER (0..17,…)	

9.2.2.43A Secondary CPICH Information Change

The *Secondary CPICH Information Change* IE indicates modification of information of the Secondary CPICH for channel estimation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Secondary CPICH Information Change*	M			
>New Secondary CPICH				
>>Secondary CPICH Information	M		Common Physical Channel ID 9.2.1.13	
>Secondary CPICH Shall Not Be Used			NULL	

9.2.2.44 SSDT Cell Identity

Void.

9.2.2.44A SSDT Cell Identity For EDSCHPC

Void.

9.2.2.45 SSDT Cell ID Length

Void.

9.2.2.46 SSDT Support Indicator

The SSDT Support Indicator indicates whether a RL supports SSDT or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SSDT Support Indicator			ENUMERATED (Not Used, SSDT Not Supported)	The *SSDT Support Indicator* IE shall never be set to 'Not Used'. If received it shall be rejected.

9.2.2.47 SSDT Indication

Void.

9.2.2.48 STTD Indicator

Indicates if STTD shall be active or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
STTD Indicator			ENUMERATED (active, inactive, …)	

9.2.2.48A Synchronisation Indicator

The *Synchronisation Indicator* IE indicates that Timing Maintained Synchronisation shall be used at start of Radio Link, see also [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Synchronisation Indicator			ENUMERATED (Timing Maintained Synchronisation, …)	

9.2.2.48B Serving E-DCH RL

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Serving E-DCH RL*	M			
>Serving E-DCH RL in this Node B				
>>Serving E-DCH RL ID	M		RL ID 9.2.1.53	
>Serving E-DCH RL not in this Node B			NULL	

9.2.2.49 T Cell

Timing delay used for defining start of SCH, CPICH and the DL scrambling code(s) in a cell relative BFN. Resolution 256 chips.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T Cell			ENUMERATED (0, 1,..,9)	Unit: chip Range: 0..2304 chips Step: 256 chips See ref. [17]

9.2.2.49A TFCI2 Bearer Information Response

Void.

9.2.2.50 TFCI Signalling Mode

This parameter indicates if the normal or split mode is used for the TFCI. In the event that the split mode is to be used then the IE indicates whether the split is "Hard" or "Logical", and in the event that the split is "Logical" the IE indicates the number of bits in TFCI (field 2).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TFCI Signalling Option	M		ENUMERATED (Normal, Not Used)	The value "Not Used" shall not be used by the CRNC. The procedure shall be rejected by the Node B if the value "Not Used" is received.
Not Used	O		NULL	
Not Used	O		NULL	

9.2.2.51 TGD

Void.

9.2.2.52 TGL

Void.

9.2.2.53 Transmit Diversity Indicator

The Transmit Diversity Indicator indicates whether transmit diversity shall be active or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmit Diversity Indicator			ENUMERATED (active, inactive)	

9.2.2.53A Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Information		*1..<maxTGPS>*		
>TGPS Identifier	M		INTEGER (1..maxTGPS)	Transmission Gap Pattern Sequence Identifier: Establish a reference to the compressed mode pattern sequence. Up to <maxTGPS> simultaneous compressed mode pattern sequences can be used.
>TGSN	M		INTEGER (0..14)	Transmission Gap Starting Slot Number: The slot number of the first transmission gap slot within the TGCFN.
>TGL1	M		INTEGER (1..14)	The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots.
>TGL2	O		INTEGER (1..14)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1.
>TGD	M		INTEGER (0, 15.. 269)	Transmission Gap Distance: indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to "0" ("0" =undefined).
>TGPL1	M		INTEGER (1..144,…)	The duration of transmission gap pattern 1 in frames.
>Not-to-be-used-1	O		INTEGER (1..144,…)	This IE shall never be included in the IE group. If received it shall be ignored.
>UL/DL Mode	M		ENUMERATED (UL only, DL only, UL/DL)	Defines whether only DL, only UL or combined UL/DL compressed mode is used.
>Downlink Compressed Mode Method	C-DL		ENUMERATED (Not Used, SF/2, Higher Layer Scheduling, …)	Method for generating downlink compressed mode gap.The *Downlink Compressed Mode Method* IE shall never be set to 'Not Used'.
>Uplink Compressed Mode Method	C-UL		ENUMERATED (SF/2, Higher Layer Scheduling, …)	Method for generating uplink compressed mode gap.
>Downlink Frame Type	M		ENUMERATED (A, B,…)	Defines if frame structure type "A" or "B" shall be used in downlink compressed mode.
>DeltaSIR1	M		INTEGER (0..30)	Delta in SIR target value to be set in the Node B during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase). Unit: dB Range: 0..3 dB Step: 0.1 dB

>DeltaSIRafter1	M		INTEGER (0..30)	Delta in SIR target value to be set in the Node B one frame after the frame containing the start of the first transmission gap in the transmission gap pattern. Unit: dB Range: 0..3 dB Step: 0.1 dB
>DeltaSIR2	O		INTEGER (0..30)	Delta in SIR target value to be set in the Node B during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase). When omitted, DeltaSIR2 = DeltaSIR1. Unit: dB Range: 0..3 dB Step: 0.1 dB
>DeltaSIRafter2	O		INTEGER (0..30)	Delta in SIR target value to be set in the Node B one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1. Unit: dB Range: 0..3 dB Step: 0.1 dB

Condition	Explanation
UL	The IE shall be present if the *UL/DL mode* IE is set to "UL only" or "UL/DL".
DL	The IE shall be present if the *UL/DL mode* IE is set to "DL only" or "UL/DL".

Range Bound	Explanation
maxTGPS	Maximum number of transmission gap pattern sequences

9.2.2.53B Transmission Gap Pattern Sequence Code Information

This IE indicates whether the alternative scrambling code shall used for the Downlink compressed mode method or not in the Transmission Gap Pattern Sequence. For details see [9].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Code Information			ENUMERATED (Code Change, No Code Change)	Indicates whether the alternative scrambling code is used for compressed mode method "SF/2".

9.2.2.54 UL/DL compressed mode selection

Void.

9.2.2.55 UL delta SIR

Void.

9.2.2.56 UL delta SIR after

Void.

9.2.2.57 UL DPCCH Slot Format

Indicates the slot format used in DPCCH in UL, according to ref. [7].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL DPCCH Slot Format			INTEGER (0..5,…)	Value 5 shall not be used. If value 5 is received, the procedure shall be rejected.

9.2.2.58 UL SIR

Void.

9.2.2.59 UL Scrambling Code

The UL Scrambling Code is the scrambling code used by UE. Every UE has its specific UL Scrambling Code.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Scrambling Code Number	M		INTEGER (0..2^{24}-1)	
UL Scrambling Code Length	M		ENUMERATED (Short, Long)	

9.2.2.60 UL Capacity Credit

Void.

9.2.2.61 UL DPDCH Indicator For E-DCH Operation

The UL DPDCH Indicator For E-DCH Operation parameter indicates whether some UL DPCH parameters should be ignored or not in the message in which the *UL DPDCH Indicator For E-DCH Operation* IE was included.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL DPDCH Indicator For E-DCH Operation			ENUMERATED (UL-DPDCH present, UL-DPDCH not present)	

9.2.2.62 Fast Reconfiguration Mode

The *Fast Reconfiguration Mode* IE is used to notify the Node B that the SRNC would like to use the activation time 'when the UE is detected on the new configuration' as the timing for the reconfiguration.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Fast Reconfiguration Mode			ENUMERATED (Fast,…)	

9.2.2.63 Fast Reconfiguration Permission

The *Fast Reconfiguration Permission* IE is used to indicate to the CRNC that the Node B can apply the activation time 'when the UE is detected on the new configuration' for this reconfiguration.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Fast Reconfiguration Permission			ENUMERATED (Allowed,…)	

9.2.2.64 Continuous Packet Connectivity DTX-DRX Capability

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Continuous Packet Connectivity DTX-DRX Capability			ENUMERATED (Continuous Packet Connectivity DTX-DRX Capable, Continuous Packet Connectivity DTX-DRX Non-Capable)	

9.2.2.65 Continuous Packet Connectivity HS-SCCH less Capability

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Continuous Packet Connectivity HS-SCCH less Capability			ENUMERATED (Continuous Packet Connectivity HS-SCCH less Capable, Continuous Packet Connectivity HS-SCCH less Non-Capable)	

9.2.2.66 Continuous Packet Connectivity DTX-DRX Information

The *Continuous Packet Connectivity DTX-DRX Information* IE defines the parameters used for Continuous Packet Connectivity DTX-DRX operation (see ref. [10]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UE DTX DRX Offset	M		INTEGER (0..159)	Units of subframes. Offset of the UE DTX and DRX cycles at the given TTI
Enabling Delay	M		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128)	Units of radio frames
DTX Information		*1*		
>CHOICE E-DCH TTI	M			

Length				
>>2ms				
>>>UE DTX Cycle 1	M		ENUMERATED (1, 4, 5, 8, 10, 16, 20)	Units of subframes
>>>UE DTX Cycle 2	M		ENUMERATED (4, 5, 8, 10, 16, 20, 32, 40, 64, 80, 128, 160)	Units of subframes
>>>MAC DTX Cycle	M		ENUMERATED (1, 4, 5, 8, 10, 16, 20)	Units of subframes
>>10ms				
>>>UE DTX Cycle 1	M		ENUMERATED (1, 5, 10, 20)	Units of subframes
>>>UE DTX Cycle 2	M		ENUMERATED (5, 10, 20, 40, 80, 160)	Units of subframes
>>>MAC DTX Cycle	M		ENUMERATED (5, 10, 20)	Units of subframes
>Inactivity Threshold for UE DTX Cycle 2	M		ENUMERATED (1, 4, 8, 16, 32, 64, 128, 256)	Units of E-DCH TTIs
>UE DTX Long Preamble	M		ENUMERATED (2,4,15)	Units of slots
>MAC Inactivity Threshold	M		ENUMERATED (1, 2, 4, 8, 16, 32, 64, 128, 256, 512, Infinity)	Units of E-DCH TTIs
>CQI DTX Timer	M		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, Infinity)	Units of subframes
>UE DPCCH burst1	M		ENUMERATED (1, 2, 5)	Units of subframes
>UE DPCCH burst2	M		ENUMERATED (1, 2, 5)	Units of subframes
DRX Information		*0..1*		
>UE DRX Cycle	M		ENUMERATED (4, 5, 8, 10, 16, 20)	Units of subframes
>Inactivity Threshold for UE DRX Cycle	M		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512)	Units of subframes
>Inactivity Threshold for UE Grant Monitoring	M		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256)	Units of E-DCH TTIs
>UE DRX Grant Monitoring	M		BOOLEAN	True: DRX Grant Monitoring shall be applied. False: DRX Grant Monitoring shall not be applied.

9.2.2.67 Continuous Packet Connectivity DTX-DRX Information To Modify

The *Continuous Packet Connectivity DTX-DRX Information To Modify* IE is used for modification of Continuous Packet Connectivity DTX-DRX information in a Node B Communication Context. The *Continuous Packet Connectivity DTX-DRX Information To Modify* IE shall include at least one of the following IE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UE DTX DRX Offset	O		INTEGER (0..159)	Units of subframes. Offset of the UE DTX and DRX cycles at the given TTI
Enabling Delay	O		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128)	Units of radio frames
CHOICE *DTX Information To Modify*	O			
>Modify				
>>CHOICE E-DCH TTI	O			

Length				
>>>2ms				
>>>>UE DTX Cycle 1	M		ENUMERATED (1, 4, 5, 8, 10, 16, 20)	Units of subframes
>>>>UE DTX Cycle 2	M		ENUMERATED (4, 5, 8, 10, 16, 20, 32, 40, 64, 80, 128, 160)	Units of subframes
>>>>MAC DTX Cycle	M		ENUMERATED (1, 4, 5, 8, 10, 16, 20)	Units of subframes
>>>10ms				
>>>>UE DTX Cycle 1	M		ENUMERATED (1, 5, 10, 20)	Units of subframes
>>>>UE DTX Cycle 2	M		ENUMERATED (5, 10, 20, 40, 80, 160)	Units of subframes
>>>>MAC DTX Cycle	M		ENUMERATED (5, 10, 20)	Units of subframes
>>Inactivity Threshold for UE DTX Cycle 2	O		ENUMERATED (1, 4, 8, 16, 32, 64, 128, 256)	Units of E-DCH TTIs
>>UE DTX Long Preamble	O		ENUMERATED (2,4,15)	Units of slots
>>MAC Inactivity Threshold	O		ENUMERATED (1, 2, 4, 8, 16, 32, 64, 128, 256, 512, Infinity)	Units of E-DCH TTIs
>>CQI DTX Timer	O		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, Infinity)	Units of Subframes
>>UE DPCCH burst1	O		ENUMERATED (1, 2, 5)	Units of Subframes
>>UE DPCCH burst2	O		ENUMERATED (1, 2, 5)	Units of Subframes
>Deactivate			NULL	
CHOICE *DRX Information To Modify*	O			
>Modify				
>>UE DRX Cycle	O		ENUMERATED (4, 5, 8, 10, 16, 20)	Units of subframes
>>Inactivity Threshold for UE DRX Cycle	O		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512)	Units of subframes
>>Inactivity Threshold for UE Grant Monitoring	O		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256)	Units of E-DCH TTIs
>>UE DRX Grant Monitoring	O		BOOLEAN	True: DRX Grant Monitoring shall be applied. False: DRX Grant Monitoring shall not be applied.
>Deactivate			NULL	

9.2.2.68 Continuous Packet Connectivity HS-SCCH less Information

The *Continuous Packet Connectivity HS-SCCH less Information* IE defines the parameters used for Continuous Packet Connectivity HS-SCCH less operation (see ref. [10]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Block Size List		*1..<maxnoofHS-DSCHTBSsHS-SCCHless>*		
>Transport Block Size Index	M		INTEGER	

			(1..maxnoofHS-DSCHTBSs)	
>HS-PDSCH Second Code Support	M		BOOLEAN	True = The second HS-PDSCH code shall also be used False = The second HS-PDSCH code shall not be used

Range Bound	Explanation
maxnoofHS-DSCHTBSsHS-SCCHless	Maximum number of HS-DSCH Transport Block Sizes used for HS-SCCH-less operation
maxnoofHS-DSCHTBSs	Maximum number of HS-DSCH Transport Block Sizes

9.2.2.69 Continuous Packet Connectivity HS-SCCH less Information Response

The *Continuous Packet Connectivity HS-SCCH less Information Response* IE provides information for HS-SCCH less operation determined within the Node B (see ref. [10]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-PDSCH First Code Index	M		INTEGER (1..maxHS-PDSCHCodeNrComp-1)	Index of first HS-PDSCH code
HS-PDSCH Second Code Index	O		INTEGER (1..maxHS-PDSCHCodeNrComp-1)	Index of second HS-PDSCH code

9.2.2.69A Continuous Packet Connectivity HS-SCCH less Deactivate Indicator

The Continuous Packet Connectivity HS-SCCH less Deactivate Indicator IE is used to deactivate HS-SCCH less operation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Continuous Packet Connectivity HS-SCCH less Deactivate Indicator	M		NULL	

Range Bound	Explanation
maxHS-PDSCHCodeNrComp	Maximum number of codes at the defined spreading factor, within the complete code tree

9.2.2.70 MIMO Capability

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MIMO Capability			ENUMERATED (MIMO Capable, MIMO Non-Capable)	

9.2.2.71 MIMO Activation Indicator

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MIMO Activation Indicator	M		NULL	

9.2.2.72 MIMO Mode Indicator

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MIMO Mode Indicator			ENUMERATED (Activate, Deactivate)	

9.2.2.73 MIMO Pilot Configuration

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Pilot Configuration	M			
>Primary and Secondary CPICH				
>>Associated Secondary CPICH	M		Common Physical Channel ID 9.2.1.13	
>Normal and Diversity Primary CPICH			NULL	

9.2.2.74 SixtyfourQAM DL Capability

This parameter defines the SixtyfourQAM downlink capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SixtyfourQAM DL Capability			ENUMERATED (SixtyfourQAM DL Capable, SixtyfourQAM DL Non-Capable)	

9.2.2.74A Sixtyfour QAM Usage Allowed Indicator

The *Sixtyfour QAM Usage Allowed Indicator* IE indicates whether the Node B is allowed to use 64 QAM modulation for HS-DSCH transmission or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Sixtyfour QAM Usage Allowed Indicator	M		ENUMERATED (Allowed, Not-Allowed)	

9.2.2.74B SixtyfourQAM DL Usage Indicator

The *SixtyfourQAM DL Usage Indicator* IE indicates if the Node B is using 64 QAM modulation for the HS-DSCH transmission, or if the Node B is not using 64 QAM modulation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SixtyfourQAM DL Usage Indicator			ENUMERATED (SixtyfourQAM DL Used, SixtyfourQAM DL Not Used)	

9.2.2.75 HS-DSCH Common System Information

The *HS-DSCH Common System Information* IE provides information for HS-DSCH configured for UE in Cell_FACH and Information related to BCCH modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH Common Information		*0..1*		
>CCCH Priority Queue ID	M		Priority Queue ID 9.2.1.49C	
>SRB#1 Priority Queue ID	M		Priority Queue ID 9.2.1.49C	
>Associated Common MAC Flow	M		Common MAC Flow ID 9.2.2.79	The Common MAC Flow ID shall be one of the flow IDs defined in the Common MAC Flow Specific Information of this IE or shall only refer to a Common MAC flow already existing in the old configuration.
>FACH Measurement Occasion Cycle Length Coefficient	O		9.2.2.82	
>RACH Measurement Result	M		9.2.2.84	
>BCCH Specific HS-DSCH-RNTI Information	M		9.2.2.85	
Common MAC Flow Specific Information		*0..<maxnoofCommonMACFlows>*		
>Common MAC Flow ID	M		9.2.2.79	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.
>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.
>Common MAC Flow Priority Queue Information		*0..<maxnoofCommonMACQueues >*		
>>Priority Queue Information for Enhanced FACH	M		Priority Queue Information for Enhanced FACH/PCH 9.2.2.83	

Range bound	Explanation
maxnoofCommonMACFlows	Maximum number of Common MAC Flows
maxnoofCommonMACQueues	Maximum number of Priority Queues for Common MAC Flow

9.2.2.76 HS-DSCH Paging System Information

The *HS-DSCH Paging System Information* IE provides information for HS-DSCH configured for UE in Cell_PCH and URA_PCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Paging MAC Flow Specific Information		*1..<maxnoofPagingMACFlow>*		
>Paging MAC Flow ID	M		9.2.2.80	
>HSDPA Associated PICH Information	M		9.2.2.81	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.
>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.
>ToAWS	M		9.2.1.61	
>ToAWE	M		9.2.1.60	
>Paging MAC Flow Priority Queue Information		*0..<maxnoofPagingMACQueues>*		
>>Priority Queue Information for Enhanced PCH	M		Priority Queue Information for Enhanced FACH/PCH 9.2.2.83	
HS-SCCH Power	M		DL Power 9.2.1.21	
HS-PDSCH Power	M		DL Power 9.2.1.21	
Number of PCCH transmissions	M		INTEGER (1..5)	Number of subframes used to transmit the PCCH.
Transport Block Size List		*1..<maxnoofHS-DSCHTBSsE-PCH >*		
>Transport Block Size Index for Enhanced PCH	M		INTEGER (1..32)	Index of the value range 1 to 32 of the MAC-ehs transport block size as specified in appendix A of [32]

Range bound	Explanation
maxnoofPagingMACFlow	Maximum number of Paging MAC Flows
maxnoofPagingMACQueues	Maximum number of Priority Queues for Paging MAC Flow
maxnoofHS-DSCHTBSsE-PCH	Maximum number of HS-DSCH Transport Block Sizes used for Enhanced PCH operation associated HS-SCCH less

9.2.2.77 HS-DSCH Common System Information Response

The *HS-DSCH Common System Information Response* IE provides information for HS-DSCH configured for UE not in Cell_DCH that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-SCCH Specific Information Response		*0..<maxnoofHSSCCHcodes>*		Channelization codes on HS-SCCH is transmitted for UE not in Cell_DCH
>Code Number	M		INTEGER (0..127)	First indexed HS-SCCH Channelisation code should be used for the BCCH specific H-RNTI.
HARQ Memory Partitioning	O		9.2.1.102	

Common MAC Flow Specific Information Response		*0..<maxnoofCommonMACFlows>*		
>Common MAC Flow ID	M		9.2.2.79	
>Binding ID	O		9.2.1.4	
>Transport Layer Address	O		9.2.1.63	
>HS-DSCH Initial Capacity Allocation	O		9.2.1.31Ha	

Range Bound	Explanation
maxnoofCommonMACFlows	Maximum number of Common MAC Flows
maxnoofHSSCCHcodes	Maximum number of HS-SCCH codes

9.2.2.78 HS-DSCH Paging System Information Response

The *HS-DSCH Paging System Information Response* IE provides information for HS-DSCH configured for UE in Cell_PCH and URA_PCH that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Paging MAC Flow Specific Information Response		*1..<maxnoofPagingMACFlow>*		
>Paging MAC Flow ID	M		9.2.2.80	
>Binding ID	O		9.2.1.4	
>Transport Layer Address	O		9.2.1.63	
>HS-PDSCH Code Index	M		INTEGER (1..maxHS-PDSCHCodeNrComp-1)	Index of HS-PDSCH code

Range bound	Explanation
maxnoofPagingMACFlow	Maximum number of Paging MAC Flows

9.2.2.79 Common MAC Flow ID

Common MAC Flow ID is the unique identifier for one Common MAC flow.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common MAC Flow ID			INTEGER (0..7)	

9.2.2.80 Paging MAC Flow ID

Paging MAC Flow ID is the unique identifier for one Paging MAC flow.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Paging MAC Flow ID			INTEGER (0..3)	

9.2.2.81 HSDPA Associated PICH Information

The *HSDPA Associated PICH Information* IE provides information for PICH used for Enhanced PCH operation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *HSDPA PICH*				
>Shared with PCH				
>>Common Physical Channel ID	M		9.2.1.13	
>Not shared with PCH				
>>Common Physical Channel ID	M		9.2.1.13	
>>FDD DL Channelisation Code Number	M		9.2.2.14	
>>PICH Power	M		9.2.1.49A	
>>PICH Mode	M		9.2.2.26	Number of PI per frame
>>STTD Indicator	M		9.2.2.48	

9.2.2.82 FACH Measurement Occasion Cycle Length Coefficient

The *FACH Measurement Occasion Cycle Length Coefficient* IE provides information used for MAC-hs scheduling decision for MAC-c PDU in Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FACH Measurement Occasion Cycle Length Coefficient			INTEGER (1..12)	

9.2.2.83 Priority Queue Information for Enhanced FACH/PCH

The *Priority Queue Information for Enhanced FACH/PCH* IE provides information associated to HSDPA Priority Queue used for Enhanced FACH and/or Enhanced PCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Priority Queue ID	M		9.2.1.49C	
Scheduling Priority Indicator	M		9.2.1.53H	
T1	M		9.2.1.56a	
MAC-ehs Reset Timer	M		9.2.2.99	
Discard Timer	O		9.2.1.24E	Shall be ignored in case of Enhanced PCH
MAC-hs Window Size	M		9.2.1.38B	
Maximum MAC-c PDU Size	M		MAC PDU Size Extended 9.2.1.38C	

9.2.2.84 RACH Measurement Result

The RACH Measurement Result identifies which RACH measurement result is forwarded to Node B in Frame Protocol.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RACH Measurement Result			ENUMERATED (CPICH Ec/No, CPICH RSCP, Pathloss,...)	

9.2.2.85 BCCH Specific HS-DSCH RNTI Information

The *BCCH Specific HS-DSCH RNTI Information* IE provides information for BCCH Transmission using HS-DSCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
BCCH Specific HS-DSCH RNTI	M		HS-DSCH-RNTI 9.2.1.31J	
HS-SCCH Power	M		DL Power 9.2.1.21	
HS-PDSCH Power	M		DL Power 9.2.1.21	

9.2.2.86 Enhanced FACH Capability

This parameter defines the Enhanced FACH capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Enhanced FACH Capability			ENUMERATED (Enhanced FACH Capable, Enhanced FACH Non-Capable)	

9.2.2.87 Enhanced PCH Capability

This parameter defines the Enhanced PCH capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Enhanced PCH Capability			ENUMERATED (Enhanced PCH Capable, Enhanced PCH Non-Capable)	

9.2.2.88 SixteenQAM UL Capability

This parameter defines the SixteenQAM uplink capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SixteenQAM UL Capability			ENUMERATED (SixteenQAM UL Capable, SixteenQAM UL Non-Capable)	

9.2.2.88A SixteenQAM UL Operation Indicator

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SixteenQAM UL Operation Indicator			ENUMERATED (Activate, Deactivate)	

9.2.2.88B E-TFCI Boost Information

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-TFCI BetaEC Boost	M		INTEGER (0..127,…)	E-TFCI threshold beyond which boosting of E-DPCCH is enabled
UL Delta T2TP	*C-E-TFCIboost 127*		INTEGER (0..6,…)	Total E-DPDCH power across all codes to the combined power of DPCCH and E-DPCCH

Condition	Explanation
E-TFCIboost127	The IE shall be present if the *E-TFCI BetaEC Boost* IE value is not set o 127.

9.2.2.89 SixteenQAM UL Information

Void.

9.2.2.90 SixteenQAM UL Information To Modify

Void.

9.2.2.91 Modulation Power Offset

Indicates the modulation, and power offset in case of 16QAM, to be used for the Secondary CCPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Modulation*	M			
>QPSK			NULL	
>QAM				
>>CPICH Secondary CCPCH Power Offset	M		INTEGER (-11..4,…)	Power offset between CPICH and secondary CCPCH. Unit: dB Range: -11 .. +4 dB Step: 1 dB

9.2.2.92 Extended Secondary CCPCH Slot Format

Indicates the slot format used for the Secondary CCPCH. The extended slot format shall only be used for MBSFN.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended Secondary CCPCH Slot Format			INTEGER(18..23,…)	

9.2.2.93 F-DPCH Slot Format

The *F-DPCH Slot Format* IE defines the F-DPCH slot format for the TPC bits, as defined in [7].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
F-DPCH Slot Format			INTEGER (0..9)	

9.2.2.94 F-DPCH Slot Format Capability

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
F-DPCH Slot Format Capability			ENUMERATED (F-DPCH Slot Format Capable, F-DPCH Slot Format Non-Capable)	

9.2.2.95 Max UE DTX Cycle

The *Max UE DTX Cycle* IE defines the maximum UE DTX cycle supported by the Node B for Continuous Packet Connectivity DTX-DRX operation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max UE DTX Cycle	M		ENUMERATED (v5, v10, v20, v40, v64, v80, v128, v160,…)	Units of subframes

9.2.2.96 MIMO N/M Ratio

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MIMO N/M Ratio	M		ENUMERATED (1/2, 2/3, 3/4, 4/5, 5/6, 6/7, 7/8, 8/9, 9/10, 1/1,…)	

9.2.2.97 Common MAC Flows To Delete

The *Common MAC Flows To Delete* IE is used for the removal of Common MAC flows from a Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common MAC Flows To Delete		*1..<maxnoofCommonMACFlows>*		
>Common MAC Flow ID	M		9.2.2.79	

Range Bound	Explanation
maxnoofCommonMACFlows	Maximum number of Common MAC Flows

9.2.2.98 Paging MAC Flows To Delete

The *Paging MAC Flows To Delete* IE is used for the removal of Paging MAC flows from a Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Paging MAC Flows To Delete		*1..<maxnoofPagingMACFlow>*		
>Paging MAC Flow ID	M		9.2.2.80	

Range Bound	Explanation
maxnoofPagingMACFlow	Maximum number of Paging MAC Flows

9.2.2.99 MAC-ehs Reset Timer

The *MAC-ehs Reset Timer* IE is used as Reset Timer(Treset) described in ref [32] subclause 11.6.4.5.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
MAC-ehs Reset Timer			ENUMERATED (1, 2, 3, 4, …)	Timer in multiples of T1 values (milliseconds). Used when MAC-ehs reordering queue is reset in CELL_FACH and CELL_PCH

9.2.3 TDD specific Parameters

9.2.3.1 Block STTD Indicator

Void.

9.2.3.2 Burst Type

Void.

9.2.3.3 CCTrCH ID

The CCTrCH ID for dedicated and shared channels identifies unambiguously an uplink or downlink CCTrCH inside a Radio Link. For S-CCPCH, it identifies unambiguously a downlink CCTrCH within a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CCTrCH ID			INTEGER (0..15)	

9.2.3.4 Cell Parameter ID

The Cell Parameter ID identifies unambiguously the [3.84 Mcps TDD and 7.68Mcps TDD - Code Groups, Scrambling Codes, Midambles and Toffset] [1.28 Mcps TDD - SYNC-DL and SYNC-UL sequences, the scrambling codes and the midamble codes] (see ref. [20]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Parameter ID			INTEGER (0..127,…)	

9.2.3.4A Constant Value

The Constant Value is the power margin used by a UE to set the proper uplink power for a DCH, USCH, or a RACH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Constant Value			INTEGER (-10..10,…)	Unit: dB Range: -10 .. +10 dB Step: 1 dB.

9.2.3.4B DL Timeslot ISCP

The DL Timeslot ISCP is the measured interference in a downlink timeslot at the UE, see ref. [5].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Timeslot ISCP			INTEGER (0..91)	According to mapping in ref. [5].

9.2.3.4C DCH TDD Information

The *DCH TDD Information* IE provides information for DCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DCH TDD Information		*1..<maxnoofDCHs>*			–	
>Payload CRC Presence Indicator	M		9.2.1.49		–	
>UL FP Mode	M		9.2.1.66		–	
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
>DCH Specific Info		*1..<maxnoofDCHs>*			–	
>>DCH ID	M		9.2.1.20		–	
>>CCTrCH ID	M		9.2.3.3	UL CCTrCH in which the DCH is mapped	–	
>>CCTrCH ID	M		9.2.3.3	DL CCTrCH in which the DCH is mapped	–	
>>Transport Format Set	M		9.2.1.59	For UL	–	
>>Transport Format Set	M		9.2.1.59	For DL	–	
>>Allocation/Retention Priority	M		9.2.1.1A		–	
>>Frame Handling Priority	M		9.2.1.30		–	
>>QE-Selector	C-CoorDCH		9.2.1.50A		–	
>>Unidirectional DCH Indicator	O		9.2.1.68		YES	reject
>TNL QoS	O		9.2.1.58A		YES	ignore

Condition	Explanation
CoorDCH	The IE shall be present if this DCH is part of a set of coordinated DCHs (number of instances of the *DCH Specific Info* IE is greater than 1).

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE

9.2.3.4D DCHs TDD To Modify

The *DCHs TDD To Modify* IE provides information for DCHs to be modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DCHs TDD To Modify		*1..<maxnoofDCHs>*			–	
>UL FP Mode	O		9.2.1.66		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
>Transport Bearer Request Indicator	M		9.2.1.62A		–	
>DCH Specific Info		*1..<maxnoofDCHs>*			–	
>>DCH ID	M		9.2.1.20		–	
>>CCTrCH ID	O		9.2.3.3	UL CCTrCH in which the DCH is mapped.	–	
>>CCTrCH ID	O		9.2.3.3	DL CCTrCH in which the DCH is mapped	–	
>>Transport Format Set	O		9.2.1.59	For the UL.	–	
>>Transport Format Set	O		9.2.1.59	For the DL.	–	
>>Allocation/Retention Priority	O		9.2.1.1A		–	
>>Frame Handling Priority	O		9.2.1.30		–	
>TNL QoS	O		9.2.1.58A		YES	ignore

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE

9.2.3.4E DL Timeslot Information

The *DL Timeslot Information* IE provides information for DL Time slot to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Timeslot Information		*1..<maxnoofDLts>*		
>Time Slot	M		9.2.3.23	
>Midamble Shift And Burst Type	M		9.2.3.7	
>TFCI Presence	M		9.2.1.57	
>DL Code Information	M		TDD DL Code Information 9.2.3.19B	

Range Bound	Explanation
maxnoofDLts	Maximum number of Downlink time slots per Radio Link

9.2.3.4F DL Time Slot ISCP Info

The *DL Time Slot ISCP Info* IE provides information for DL Interference level for each time slot within the Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Time Slot ISCP Info		*1..<maxnoofDLts>*		
>Time Slot	M		9.2.3.23	
>DL Timeslot ISCP	M		9.2.3.4B	

Range Bound	Explanation
maxnoofDLts	Maximum number of Downlink time slots per Radio Link for 3.84Mcps TDD.

9.2.3.4G Cell Sync Burst Code

The *Cell Sync Burst Code* IE indicates which Code is used for a given Cell Sync Burst.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Sync Burst Code			INTEGER (0..7,…)	

9.2.3.4H Cell Sync Burst Code Shift

The *Cell Sync Burst Code Shift* IE indicates the number of code shifts used for a given Cell Sync Burst.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Sync Burst Code Shift			INTEGER (0..7)	

9.2.3.4I CSB Measurement ID

The *Cell Sync Burst Measurement ID* IE uniquely identifies any cell synchronisation burst measurement per Node B Control Port.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CSB Measurement ID			INTEGER (0..65535)	

9.2.3.4J Cell Sync Burst Repetition Period

The *Cell Sync Burst Repetition Period* IE represents the number of consecutive Radio Frames after which the cell synchronisation burst transmission/measurement is repeated. This means that if the Time Slot *K* is assigned to the cell synchronisation burst transmission/measurements in the Radio Frame *J*, the cell synchronisation burst transmission/measurement is also in all the Radio Frames *J+n*Repetition Period*.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Sync Burst Repetition Period			INTEGER (0..4095)	

9.2.3.4K Cell Sync Burst SIR

Indicates the Signal to Interference Ratio of the cell synchronisation burst measurement according definition in [5].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Sync Burst SIR			INTEGER (0..31)	According to mapping in [23]

9.2.3.4L Cell Sync Burst Timing

The *Cell Sync Burst Timing* IE defines the time of start (defined by the first detected path in time) of the cell synchronisation burst of a neighbouring cell see [5] for 3.84Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Phase*				According to mapping in [23]
>*Initial Phase*				
>>Cell Synch Burst Timing Value	M		INTEGER (0..1048575,…)	
>*Steady State Phase*				
>>Cell Synch Burst Timing Value	M		INTEGER (0..255,…)	

9.2.3.4La Cell Sync Burst Timing LCR

The *Cell Sync Burst Timing LCR* IE defines the time of start (defined by the first detected path in time) of the cell synchronisation burst of a neighbouring cell see [5] for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Phase*				According to mapping in [23]
>*Initial Phase*				
>>Cell Synch Burst Timing Value	M		INTEGER (0.. 524287,…)	
>*Steady State Phase*				
>>Cell Synch Burst Timing Value	M		INTEGER (0..127,…)	

9.2.3.4M Cell Sync Burst Timing Threshold

The *Cell Sync Burst Timing Threshold* IE defines the threshold that shall trigger a CELL SYNCHRONISATION REPORT message.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Sync Burst Timing Threshold			INTEGER (0..254)	Unit: chip Range: 0 .. 31.75 chips Step: 0.125 chip

9.2.3.4N CSB Transmission ID

The *Cell Sync Burst Transmisson ID* IE uniquely identifies any cell synchronisation burst transmission per Node B Control Port.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CSB Transmission ID			INTEGER (0..65535)	

9.2.3.4O DL Timeslot Information LCR

The *DL Timeslot Information LCR* IE provides information for DL Time slot to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DL Timeslot Information LCR		*1..<maxnoofDLtsLCR>*			–	
>Time Slot LCR	M		9.2.3.24A		–	
>Midamble Shift LCR	M		9.2.3.7A		–	
>TFCI Presence	M		9.2.1.57		–	
>DL Code Information	M		TDD DL Code Information LCR 9.2.3.19C		–	
>Initial DL Transmission Power	O		DL Power 9.2.1.21	Initial power on DPCH	YES	ignore
>Maximum DL Power	O		DL Power 9.2.1.21	Maximum allowed power on DPCH	YES	ignore
>Minimum DL Power	O		DL Power 9.2.1.21	Minimum allowed power on DPCH	YES	ignore

Range Bound	Explanation
maxnoofDLtsLCR	Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD.

9.2.3.4P DL Time Slot ISCP Info LCR

The *DL Time Slot ISCP Info LCR* IE provides information for DL Interference level for each time slot within the Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Time Slot ISCP Info LCR		*1..<maxnoofDLtsLCR>*		
>Time Slot LCR	M		9.2.3.24A	
>DL Timeslot ISCP	M		9.2.3.4B	

Range Bound	Explanation
maxnoofDLtsLCR	Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD.

9.2.3.4Q UpPCH Position LCR

The *UpPCH Position LCR* IE indicates the start point of the UpPCH channel , where the step size is 16chips, the maximum allowed value that can be utilised is 127*16=2032chips, The reference point (UpPCH Position LCR =0) is the startpoint of the timeslot of UpPTS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UpPCH Position LCR			INTEGER (0..127)	

9.2.3.5 DPCH ID

The DPCH ID identifies unambiguously a DPCH inside a Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPCH ID			INTEGER (0..239)	

9.2.3.5a DSCH ID

The DSCH ID uniquely identifies a DSCH within a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DSCH ID			INTEGER (0..255)	

9.2.3.5b DSCH Information Response

The *DSCH Information Response* IE provides information for DSCHs that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DSCH Information Response		*1..<maxnoofDSCHs>*		
>DSCH ID	M		9.2.3.5a	
>Binding ID	O		9.2.1.4	
>Transport Layer Address	O		9.2.1.63	

Range Bound	Explanation
maxnoofDSCHs	Maximum number of DSCHs for one UE

9.2.3.5A DSCH TDD Information

The *DSCH TDD Information* IE provides information for DSCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DSCH TDD Information		*1..<maxnoofDSCHs>*			–	
>DSCH ID	M		9.2.3.5a		–	
>CCTrCH ID	M		9.2.3.3	DL CCTrCH in which the DSCH is mapped	–	
>Transport Format Set	M		9.2.1.59	For DSCH	–	
>Allocation/Retention Priority	M		9.2.1.1A		–	
>Frame Handling Priority	M		9.2.1.30		–	
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore

Range Bound	Explanation
MaxnoofDSCHs	Maximum number of DSCH for one UE

9.2.3.5B DwPCH Power

DwPCH Power is the power that shall be used for transmitting the DwPCH in a cell. The reference point is the antenna connector. If Transmit Diversity is applied to the DwPCH, the DwPCH power is the linear sum of the power that is used for transmitting the DwPCH on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DwPCH Power			INTEGER (-150..+400,…)	Unit: dBm Range: -15 ..+40 dBm Step: 0.1 dB

9.2.3.5C Frame Adjustment Value

The *Frame Adjustment Value* IE represents the frame number correction within the initial synchronisation phase.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Frame Adjustment Value			INTEGER (0..4095)	$SFN_{new}=(SFN_{old}$+Frame Adjustment Value) mod 4096

9.2.3.5D IPDL TDD Parameter

The *IPDL TDD Parameter* IE provides information about IPDL to be applied for 3.84Mcps TDD or 7.68Mcps TDD when activated.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IP SpacingTDD	M		ENUMERATED (30, 40, 50, 70, 100, ...)	See [21]
IP Start	M		INTEGER (0..4095)	See [21]
IP Slot	M		INTEGER (0..14)	See [21]
IP PCCPCH	M		ENUMERATED (Switch off 1 frame, Switch off 2 frames)	See [21]
Burst Mode parameters	O		9.2.1.5A	

9.2.3.5E Max FPACH Power

Max FPACH Power is the maximum power that shall be used for transmitting the FPACH in a cell. The reference point is the antenna connector. If Transmit Diversity is applied to the FPACH, the Max FPACH Power is maximum of the linear sum of the power that is allowed for transmitting the FPACH on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FPACH Power			INTEGER (-150..+400,…)	Unit: dBm Range: -15 ..+40 dBm Step: 0.1 dB

9.2.3.5F HS-DSCH TDD Information

The *HS-DSCH TDD Information* IE is used for initial addition of HS-DSCH information to a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flows Information	M		9.2.1.31IA		–	
UE Capabilities Information		*1*			–	
>HS-DSCH Physical Layer Category	M		9.2.1.31Ia		–	
>1.28 Mcps TDD Uplink Physical Channel Capability	O		9.2.3.5Gc	Applicable to 1.28Mcps TDD only	YES	ignore
>Number of Supported Carriers	O		ENUMERATED (One-one carrier, One-three carrier, Three-three carrier, One-six carrier, Three-six carrier, Six-six carrier, ...)	Applicable to 1.28Mcps TDD only This IE indicates the number of carrier that UE can support at the same time, where 'One-three carrier' means the number of supported carrier is one for the uplink,and three for the downlink.	YES	reject
MAC-hs Reordering Buffer Size for RLC-UM	M		9.2.1.38Ab		–	
TDD ACK NACK Power Offset	M		9.2.3.18F		–	
HS-SICH SIR Target	O		UL SIR 9.2.1.67A	Applicable to 1.28Mcps TDD only	YES	ignore
HS-SICH TPC step size	O		9.2.3.21a	Applicable to 1.28Mcps TDD only	YES	ignore
HS-DSCH MAC-d PDU Size Format	O		9.2.1.31ID	If not present, "Indexed MAC-d PDU Size" shall be used.	YES	reject
TSN-Length	O		9.2.3.5I	Applicable for 1.28Mcps TDD when using multiple frequencies	YES	reject

9.2.3.5G HS-DSCH TDD Information Response

The HS-DSCH TDD Information Response provides information for HS-DSCH MAC-d flows that have been established or modified. It also provides additional HS-DSCH information determined within the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information Response		*0..<maxnoofMACdFlows>*			–	
>HS-DSCH MAC-d Flow ID	M		9.2.1.31I		–	
>Binding ID	O		9.2.1.4		–	
>Transport Layer Address	O		9.2.1.63		–	
>HS-DSCH Initial Capacity Allocation	O		9.2.1.31Ha		–	
HS-SCCH Specific Information Response		*0..<maxNoOfHSSCCHcodes>*		Not applicable to 1.28 Mcps TDD or 7.68Mcps TDD	GLOBAL	reject
>Time Slot	M		9.2.3.23		–	
>Midamble Shift And Burst Type	M		9.2.3.7		–	
>TDD Channelisation Code	M		9.2.3.19		–	
>HS-SICH Information		*1*			–	
>>HS SICH ID	M		9.2.3.5Gb		–	
>>Time Slot	M		9.2.3.23		–	
>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>TDD Channelisation Code	M		9.2.3.19		–	
HS-SCCH Specific Information Response LCR per UARFCN		*0..<maxHSDPAFrequency>*		Not applicable to 3.84 Mcps TDD or 7.68Mcps TDD See note1 below	–	
>HS-SCCH Specific Information Response LCR		*1..<maxNoOfHSSCCHcodes>*		Not applicable to 3.84 Mcps TDD or 7.68Mcps TDD	GLOBAL	reject
>>Time Slot LCR	M		9.2.3.24A		–	
>>Midamble Shift LCR	M		9.2.3.7A		–	
>>First TDD Channelisation Code	M		TDD Channelisation Code 9.2.3.19		–	
>>Second TDD Channelisation Code	M		TDD Channelisation Code 9.2.3.19		–	
>>HS-SICH Information LCR		*1*			–	
>>>HS SICH ID	M		9.2.3.5Gb	If the *Extended HS-SICH ID* IE is included in the *HS-SICH Information LCR* IE, the *HS-SICH ID* IE shall be ignored.	–	
>>>Time Slot LCR	M		9.2.3.24A		–	
>>>Midamble Shift LCR	M		9.2.3.7A		–	
>>>TDD Channelisation Code	M		9.2.3.19		–	
>>>Extended HS-SICH ID	O		9.2.3.5K	The *Extended HS-SICH ID* IE shall be used if the HS-SICH	YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
				identity has a value larger than 31.		
>>UsedFrequency	O		UARFCN 9.2.1.65	Applicable for 1.28Mcps TDD when using multiple frequencies. this IE indicates the frequency which is actually used by the HS-SCCH.	YES	reject
>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Applicable for 1.28Mcps TDD when using multiple frequencies. See note2 below	YES	ignore
HARQ Memory Partitioning per UARFCN		*0..<max HSDPA Frequency>*		See note 1 below	–	
>HARQ Memory Partitioning	O		9.2.1.102		–	
>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Applicable for 1.28Mcps TDD when using multiple frequencies. See note2 below	YES	ignore
HS-SCCH Specific Information Response 7.68Mcps		*0..<max NoOfHS SCCHcodes>*		Not applicable to 3.84 Mcps TDD or 1.28Mcps TDD	GLOBAL	reject
>Time Slot	M		9.2.3.23		–	
>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>Channelisation Code 7.68Mcps	M		TDD Channelisation Code 7.68Mcps 9.2.3.34		–	
>HS-SICH Information 7.68Mcps		*1*			–	
>>HS SICH ID	M		9.2.3.5Gb			
>>Time Slot	M		9.2.3.23		–	
>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>Channelisation Code 7.68Mcps	M		TDD Channelisation Code 7.68Mcps 9.2.3.34		–	
Multi-Carrier number	O		INTEGER(1..maxHSDPAFrequency)	Applicable for 1.28Mcps TDD when using multiple frequencies.	YES	ignore

Range Bound	Explanation
maxnoofMACdFlows	Maximum number of HS-DSCH MAC-d flows.
maxnoofHSSCCHcodes	Maximum number of HS-SCCH codes
maxHSDPAFrequency	Maximum number of Frequencies that UE can support

Note 1: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxHSDPAFrequency are represented by separate ASN.1 structures with different criticalities.

Note 2: The *UARFCN* IE in the *HARQ Memory Partitioning per UARFCN* IE has the same content as that in the *HS-SCCH Specific Information Response LCR per UARFCN* IE. They will be represented by one ASN.1 structure with same criticalities

9.2.3.5GA HS-DSCH TDD Update Information

The *HS-DSCH TDD Update Information* IE provides information for HS-DSCH to be updated. At least one IE shall be present.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-SCCH Code Change Indicator	O		9.2.1.31K	
TDD ACK NACK Power Offset	O		9.2.3.18F	

9.2.3.5Ga HS-SCCH ID

The HS-SCCH ID identifies unambiguously a HS-SCCH and its paired HS-SICH within the set of HS-SCCHs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS SCCH ID			INTEGER (0..31)	

9.2.3.5Gb HS-SICH ID

The HS-SICH ID identifies unambiguously a HS-SICH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS SICH ID			INTEGER (0..31)	

9.2.3.5Gc 1.28 Mcps TDD Uplink Physical Channel Capability

The *1.28 Mcps TDD Uplink Physical Channel Capability* IE defines the UE uplink radio access capacity, see ref [33].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number of timeslots per subframe	M		INTEGER (1..6)	
Maximum number of physical channels per timeslot	M		ENUMERATED (one, two, ..., three, four)	

9.2.3.5H IPDL TDD Parameters LCR

The *IPDL TDD Parameters LCR* IE provides information about IPDL to be applied for 1.28Mcps TDD when activated.

IE/Group Name	Presence	Range	IE Type and	Semantics Description

			Reference	
IP SpacingTDD	M		ENUMERATED (30, 40, 50, 70, 100, ...)	See [21]
IP Start	M		INTEGER (0..4095)	See [21]
IP_Sub	M		ENUMERATED (First, Second, Both)	See [21]
Burst Mode Parameters	O		9.2.1.5A	

9.2.3.5I TSN-Length

Indicates the TSN bits applied to the MAC-hs PDU frame.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TSN-Length			ENUMERATED (tsn-6bits, tsn-9bits)	

9.2.3.5J Extended HS-SCCH ID

The Extended HS-SCCH ID LCR identifies unambiguously a HS-SCCH and its paired HS-SICH within the set of HS-SCCHs in a cell for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended HS-SCCH ID			INTEGER(32..255)	The *Extended HS-SCCH ID* IE shall be used if the HS-SCCH identity has a value larger than 31.

9.2.3.5K Extended HS-SICH ID

The Extended HS-SICH ID LCR identifies unambiguously a HS-SICH in a cell for 1.28Mcps TDD

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended HS-SICH ID			INTEGER(32..255)	The *Extended HS-SICH ID* IE shall be used if the HS-SICH identity has a value larger than 31.

9.2.3.6 Max PRACH Midamble Shift

Indicates the maximum number of Midamble shifts to be used in a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max PRACH Midamble Shift			ENUMERATED (4, 8,…,16)	

9.2.3.7 Midamble Shift And Burst Type

This information element indicates burst type and midamble allocation for burst types 1, 2 and 3.

The 256 chip midamble supports 3 different time shifts, the 512 chips midamble may support 8 or even 16 time shifts.

Three different midamble allocation schemes exist:

Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL)

Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only)

UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL)

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Burst Type*				
>Type1				
>>Midamble Configuration Burst Type 1 And 3	M		ENUMERATED (4, 8, 16)	As defined in [19]
>>CHOICE *Midamble Allocation Mode*	M			
>>>Default Midamble			NULL	
>>>Common Midamble			NULL	
>>>UE Specific Midamble				
>>Midamble Shift Long	M		INTEGER (0..15)	
>Type2				
>>Midamble Configuration Burst Type 2	M		ENUMERATED (3, 6)	As defined in [19]
>>CHOICE *Midamble Allocation Mode*	M			
>>>Default Midamble			NULL	
>>>Common Midamble			NULL	
>>>UE Specific Midamble				
>>Midamble Shift Short	M		INTEGER (0..5)	
>Type3				UL only
>>Midamble Configuration Burst Type 1 And 3	M		ENUMERATED (4, 8, 16)	As defined in [19]
>>CHOICE *Midamble Allocation Mode*	M			
>>>Default Midamble			NULL	
>>>UE Specific Midamble				
>>Midamble Shift Long	M		INTEGER (0..15)	

9.2.3.7A Midamble Shift LCR

This information element indicates midamble allocation in 1.28Mcps TDD.

Three different midamble allocation schemes exist:

Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL)

Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only)

UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL)

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Midamble Allocation Mode	M		ENUMERATED (Default midamble, Common midamble, UE specific midamble, …)	
Midamble Shift Long	C-UE		INTEGER (0..15)	
Midamble Configuration LCR	M		ENUMERATED (2, 4, 6, 8, 10, 12, 14, 16, ...)	As defined in [19]

Condition	Explanation
UE	The IE shall be present if the *Midamble Allocation Mode* IE is set to "UE-specific midamble".

9.2.3.7Aa Notification Indicator Length

The Notification Indicator Length indicates the number of symbols for Notification Indication transmitted in one timeslot (see ref [19]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Notification Indicator Length			ENUMERATED (2, 4, 8,…)	

9.2.3.7B Number Of Cycles Per SFN Period

The *Number Of Cycles Per SFN Period* IE indicates the number of repetitions per SFN period where the same schedule shall apply.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Number Of Cycles Per SFN Period			ENUMERATED (1, 2, 4, 8, ..., 16, 32, 64)	

9.2.3.7C Number Of Repetitions Per Cycle Period

The *Number Of Repetitions Per Cycle Period* IE indicates the number of Sync frames per Cycle Length where the [3.84Mcps TDD - cell synchronisation bursts] [1.28Mcps TDD - Sync_DL Codes] shall be transmitted or the cell synchronisation bursts from the neighbouring cells shall be measured.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Number Of Repetitions Per Cycle Period			INTEGER (2..10)	

9.2.3.7D Number Of Subcycles Per Cycle Period

The *Number Of Subcycles Per Cycle Period* IE indicates the number of subcycles within a Synchronisation Cycle. Within each subcycle, the same sequence of SYNC_DL Code transmissions and receptions is performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Number Of Subcycles Per Cycle Period			INTEGER (1..16,...)	

9.2.3.8 Paging Indicator Length

The Paging Indicator Length indicates the number of symbols for Page Indication transmitted in one timeslot (see ref [19]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Paging Indicator Length			ENUMERATED (2, 4, 8,…)	

9.2.3.9 PCCPCH Power

The Primary CCPCH power is the power that shall be used for transmitting the P CCPCH in a cell. The P CCPCH power is the reference power in a TDD-cell. The reference point is the antenna connector. If Transmit Diversity is applied to the Primary CCPCH, the Primary CCPCH power is the linear sum of the power that is used for transmitting the Primary CCPCH on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PCCPCH Power			INTEGER (-150..+400,…)	Unit: dBm Range: -15 ..+40 dBm Step: 0.1 dB

9.2.3.10 PDSCH ID

The PDSCH ID identifies unambiguously a PDSCH inside a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PDSCH ID			INTEGER (0..255)	

9.2.3.11 PDSCH Set ID

The PDSCH Set Id identifies unambiguously a PDSCH Set inside a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PDSCH Set ID			INTEGER (0..255)	See ref. [6]

9.2.3.11A Primary CCPCH RSCP

Received Signal Code Power is the received power on PCCPCH of the target cell after despreading. The reference point for the RSCP is the antenna connector at the UE, see ref. [5].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary CCPCH RSCP			INTEGER (0..91)	According to mapping of the non-negative values in ref. [23].

9.2.3.11B Primary CCPCH RSCP Delta

Primary CCPCH RSCP Delta is the offset used to report the negative reporting range of P-CCPCH RSCP as per [23].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary CCPCH RSCP Delta			INTEGER(-5..-1,…)	If present, the actual value of Primary CCPCH RSCP = Primary CCPCH RSCP Delta

9.2.3.12 PUSCH ID

The PUSCH ID identifies unambiguously a PUSCH inside a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PUSCH ID			INTEGER (0..255)	

9.2.3.13 PUSCH Set ID

The PUSCH Set ID identifies unambiguously a PUSCH Set inside a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PUSCH Set ID			INTEGER (0..255)	See ref. [6]

9.2.3.14 PRACH Midamble

The PRACH Midamble indicates if only the Basic Midamble Sequence or also the time-inverted Midamble Sequence is used.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PRACH Midamble			ENUMERATED (Inverted, Direct, …)	

9.2.3.14A Reference Clock Availability

The *Reference Clock Availability* IE is used to indicate the presence and operating of a Reference Clock connected to a TDD cell for cell synchronisation purpose.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Reference Clock Availability			ENUMERATED (Available, Not Available)	

9.2.3.14B Reference SFN Offset

The *Reference SFN Offset* IE indicates the number of frames the reference SFN shall be shifted compared to the SFN derived from the synchronisation port.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Reference SFN Offset			INTEGER (0..255)	

9.2.3.15 Repetition Length

The Repetition Length represents the number of consecutive Radio Frames inside a Repetition Period in which the same Time Slot is assigned to the same Physical Channel see ref. [18].

[1.28Mcps TDD - When applied to configure the E-DCH Non-scheduled Grant Information, the Repetition Length represents the number of consecutive Subframes, i.e. 5ms inside a Repetition Period in which the same Time Slot is assigned to the same Physical Channel see ref. [18].]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Repetition Length			INTEGER (1..63)	

9.2.3.16 Repetition Period

The Repetition Period represents the number of consecutive Radio Frames after which the same assignment scheme of Time Slots to a Physical Channel is repeated. This means that if the Time Slot *K* is assigned to a physical channel in the Radio Frame *J*, it is assigned to the same physical channel also in all the Radio Frames *J+n*Repetition Period* (where *n* is an integer) see ref. [18].

[1.28Mcps TDD - When applied to configure the E-DCH Non-scheduled Grant Information, the Repetition Period represents the number of consecutive Subframes, i.e. 5ms after which the same assignment scheme of Time Slots to a Physical Channel is repeated see ref. [18].]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Repetition Period			ENUMERATED (1, 2, 4, 8, 16, 32, 64,…)	

9.2.3.17 SCH Time Slot

The *SCH Time Slot* IE represents the first time slot (k) of a pair of time slots inside a Radio Frame that shall be assigned to the Physical Channel SCH. The *SCH Time Slot* IE is only applicable if the value of *Sync Case* IE is Case 2 since in this case the SCH is allocated in TS#k and TS#k+8.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SCH Time Slot			INTEGER (0..6)	

9.2.3.18 Sync Case

The SCH and PCCPCH are mapped on one or two downlink slots per frame. There are two cases of SCH and PCCPCH allocation as follows:

Case 1) SCH and PCCPCH allocated in a single TS#k

Case 2) SCH allocated in two TS: TS#k and TS#k+8
PCCPCH allocated in TS#k

[1.28Mcps TDD - There is no Sync Case indication needed for 1.28Mcps TDD. If the *Sync Case* IE must be included in a message from CRNC to Node B used for 1.28Mcps TDD, the CRNC should indicate Sync Case 1 and the Node B shall ignore it.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Sync Case			INTEGER (1..2,…)	

9.2.3.18A Special Burst Scheduling

The number of frames between special burst transmissions during DTX.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Special Burst Scheduling			INTEGER (1..256)	Number of frames between special burst transmission during DTX

9.2.3.18B SYNC_DL Code ID

The SYNC_DL Code ID identifies the SYNC_DL Code which used by DwPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SYNC_DL Code ID			INTEGER (1..32,...)	

9.2.3.18C Sync Frame Number

The *Sync Frame Number* IE indicates the number of the Sync frame within a Synchronisation Cycle or Subcycle, respectively, where the cell synchronisation bursts shall be transmitted or the cell synchronisation bursts from the neighbouring cells shall be measured.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Sync Frame Number			INTEGER (1..10)	

9.2.3.18D Synchronisation Report Characteristics

The *Synchronisation Report Characteristics* IE defines how the reporting on measured [3.84Mcps TDD - cell synchronisation bursts] [1.28Mcps TDD - Sync_DL Codes] shall be performed

Different methods shall apply for the measured [3.84Mcps TDD - cell synchronisation burst] [1.28Mcps TDD - Sync_DL Codes] reports. [3.84Mcps TDD - In the frequency acquisition phase the measurement report shall be sent when the frequency locking is completed.] In the initial phase and for the measurement on late-entrant cells an immediate report after the measured frame is expected.

In the steady-state phase measurement reports may be given after every measured frame, after every SFN period, after every cycle length or only when the requested threshold is exceeded.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Synchronisation Report Characteristics Type	M		ENUMERATED (Frame related, SFN period related, Cycle length related, Threshold exceeding, Frequency Acquisition completed, ...)		–	
Threshold Exceeding	C-ThresholdExceeding			Applies only to the Steady State Phase	–	
>Cell Sync Burst Threshold Information		*0..<maxnoofCellSyncBursts>*		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.	–	

>>Sync Frame Number To Receive	M		Sync Frame Number 9.2.3.18C		–	
>>Cell Sync Burst Information		*1..<maxnoofreceptionsperSyncFrame>*			–	
>>>Cell Sync Burst Code	M		9.2.3.4G		–	
>>>Cell Sync Burst Code Shift	M		9.2.3.4H		–	
>>>Cell Sync Burst Arrival Time	O		Cell Sync Burst Timing 9.2.3.4L		–	
>>>Cell Sync Burst Timing Threshold	O		9.2.3.4M		–	
>SYNC_DL Code Threshold Information LCR		*0..<maxnoofSyncFramesLCR>*		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	GLOBAL	ignore
>>Sync Frame Number To Receive	M		Sync Frame Number 9.2.3.18C		–	
>>SYNC_DL Code Information LCR		*1..<maxnoofreceptionsperSyncFrameLCR>*			–	
>>>SYNC_DL Code ID	M		9.2.3.18B		–	
>>>SYNC_DL Code ID Arrival Time	O		Cell Sync Burst Timing LCR 9.2.3.4La		–	
>>>SYNC_DL Code ID Timing Threshold	O		Cell Sync Burst Timing Threshold 9.2.3.4M		–	

Range Bound	Explanation
maxnoofCellSyncBursts	Maximum number of cell synchronisation burst per cycle for 3.84Mcps TDD
maxnoofreceptionsperSyncFrame	Maximum number of cell synchronisation burst receptions per Sync Frame for 3.84Mcps TDD
maxnoofSyncFramesLCR	Maximum number of SYNC Frames per repetition period for 1.28Mcps TDD
maxnoofreceptionsperSyncFrameLCR	Maximum number of SYNC_DL Code ID receptions per Sync Frame for 1.28Mcps TDD

9.2.3.18E Synchronisation Report Type

The *Synchronisationt Report Type* IE represents the individual types of synchronisation reports that shall apply within the individual synchronisation phases. (see [17]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Synchronisation Report Type			ENUMERATED (Initial Phase, Steady-State Phase, Late-Entrant Cell, Frequency Acquisition, ...)	

9.2.3.18F TDD ACK NACK Power Offset

The *TDD ACK NACK Power Offset* IE indicates Power offset used in the UL in the HS-SICH between transmissions carrying positive and negative acknowledgements as per [18].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TDD ACK NACK Power Offset			INTEGER (-7..8,…)	Unit: dB Range: -7..+8 dB Step: 1 dB

9.2.3.19 TDD Channelisation Code

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code, that can have a spreading factor of 1, 2, 4, 8 or 16.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Channelisation Code			ENUMERATED ((1/1), (2/1), (2/2), (4/1), .. (4/4), (8/1), .. (8/8), (16/1), .. (16/16),…)	

9.2.3.19a TDD Channelisation Code LCR

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In 1.28Mcps TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code, that can have a spreading factor of 1, 2, 4, 8 or 16 and there is a choice between QPSK and 8PSK modulation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Channelisation Code			9.2.3.19	
Modulation			ENUMERATED (QPSK, 8PSK,…)	Modulation options for 1.28Mcps TDD in contrast to 3.84Mcps TDD. 8PSK denotes 16QAM for S-CCPCH

9.2.3.19A TDD DPCH Offset

The Offset represents the phase information for the allocation of a group of dedicated physical channels. The *Offset Type* IE = "No Initial Offset" is used when a starting offset is not required and the TDD Physical channel offset for each DPCH in the CCTrCH shall be directly determined from the TDD DPCH Offset. The *Offset Type* IE = "Initial Offset" is used when a starting offset is required. The TDD DPCH Offset shall map to the CFN and the TDD Physical Channel Offet for each DPCH in this CCTrCH shall calculated by TDD DPCH Offset *mod* Repetition period, see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Offset Type*				
>Initial Offset				
>>TDD DPCH Offset Value	M		INTEGER (0..255)	
>No Initial Offset				
>>TDD DPCH Offset Value	M		INTEGER (0..63)	

9.2.3.19B TDD DL Code Information

The *TDD DL Code Information* IE provides DL Code information for the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD DL Code Information		*1..<maxnoofDPCHs>*		
>DPCH ID	M		9.2.3.5	
>TDD Channelisation Code	M		9.2.3.19	

Range Bound	Explanation
maxnoofDPCHs	Maximum number of DPCHs in one CCTrCH

9.2.3.19C TDD DL Code Information LCR

The *TDD DL Code Information LCR* IE provides DL Code information for the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD DL Code Information LCR		*1..<maxnoofDPCHsLCR>*		
>DPCH ID	M		9.2.3.5	
>TDD Channelisation Code LCR	M		9.2.3.19a	
>TDD DL DPCH Time Slot Format LCR	M		9.2.3.19D	

Range Bound	Explanation
maxnoofDPCHsLCR	Maximum number of DPCH in one CCTrCH for 1.28Mcps TDD

9.2.3.19D TDD DL DPCH Time Slot Format LCR

TDD DL DPCH Time Slot Format LCR indicates the time slot formats used in DL DPCH for 1.28Mcps TDD (see ref. [19]). It also applies to PDSCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Modulation*	M			
>QPSK				
>>QPSK TDD DL DPCH Time Slot Format LCR	M		INTEGER (0..24,…)	
>8PSK				
>>8PSK TDD DL DPCH Time Slot Format LCR	M		INTEGER (0..24,…)	For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, this IE denotes MBSFN S-CCPCH time slot format , INTEGER (0..11,…).

9.2.3.20 TDD Physical Channel Offset

The Offset represents the phase information for the allocation of a physical channel. (SFN mod Repetition Period = Offset) see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Physical Channel Offset			INTEGER (0..63)	

9.2.3.21 TDD TPC DL Step Size

This parameter indicates step size for the DL power adjustment (see ref. [21]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD TPC Downlink Step Size			ENUMERATED (1, 2, 3,…)	Unit: dB

9.2.3.21a TDD TPC UL Step Size

This parameter indicates step size for the UL power adjustment (see ref. [21]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD TPC Uplink Step Size			ENUMERATED (1, 2, 3,…)	Unit: dB

9.2.3.21A TDD UL Code Information

The *TDD UL Code Information* IE provides information for UL Code to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD UL Code Information		*1..<maxnoofDPCHs>*		
>DPCH ID	M		9.2.3.5	
>TDD Channelisation Code	M		9.2.3.19	

Range Bound	Explanation
maxnoofDPCHs	Maximum number of DPCHs in one CCTrCH

9.2.3.21B TDD UL Code Information LCR

The *TDD UL Code Information LCR* IE provides information for UL Code to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD UL Code Information LCR		*1..<maxnoofDPCHsLCR>*		
>DPCH ID	M		9.2.3.5	
>TDD Channelisation Code LCR	M		9.2.3.19a	
>TDD UL DPCH Time Slot Format LCR	M		9.2.3.21C	

Range Bound	Explanation
maxnoofDPCHsLCR	Maximum number of DPCHs in one CCTrCH for 1.28Mcps TDD

9.2.3.21C TDD UL DPCH Time Slot Format LCR

TDD UL DPCH Time Slot Format LCR indicates the time slot formats used in UL DPCH for 1.28Mcps TDD (see ref. [19]). It also applies to PUSCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Modulation*	M			
>QPSK				
>>QPSK TDD UL DPCH Time Slot Format LCR	M		INTEGER (0..69,…)	
>8PSK				
>>8PSK TDD UL DPCH Time Slot Format LCR	M		INTEGER (0..24,…)	

9.2.3.22 TFCI Coding

The TFCI Coding describes the way how the TFCI bits are coded. By default 1 TFCI bit is coded with 4 bits, 2 TFCI bits are coded with 8 bits, 3-5 TFCI bits are coded with 16 bits and 6-10 TFCI bits are coded with 32 bits.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TFCI Coding			ENUMERATED (4, 8, 16, 32,…)	

9.2.3.22a Timing Adjustment Value

The *Timing Adjustment Value* IE indicates the timing correction within a Frame for 3.84Mcps TDD. Type 1 is used for the initial phase of Node B synchronisation. Type 2 is used for the steady-state phase of Node B synchronisation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Phase*				According to mapping in [23]
>Initial Phase				
>>Timing Adjustment Value	M		INTEGER (0..1048575,…)	
>Steady State Phase				
>>Timing Adjustment Value	M		INTEGER (0..255,…)	

9.2.3.22b Timing Adjustment Value LCR

The *Timing Adjustment Value LCR* IE indicates the timing correction within a Frame for 1.28Mcps TDD. Type 1 is used for the initial phase of Node B synchronisation. Type 2 is used for the steady-state phase of Node B synchronisation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Phase*				According to mapping in [23]
>Initial Phase				
>>Timing Adjustment Value	M		INTEGER (0.. 524287,…)	
>Steady State Phase				
>>Timing Adjustment Value	M		INTEGER (0..127,…)	

9.2.3.22A Timing Advance Applied

Defines the need for Rx Timing Deviation measurement results to be reported in a particular cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timing Advance Applied			ENUMERATED (Yes, No)	

9.2.3.23 Time Slot

The Time Slot represents the minimum time interval inside a Radio Frame that can be assigned to a Physical Channel.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot			INTEGER (0..14)	

9.2.3.24 Time Slot Direction

This parameter indicates whether the TS in the cell is used in Uplink or Downlink direction.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot Direction			ENUMERATED (UL, DL, …)	

9.2.3.24A Time Slot LCR

The Time Slot LCR is the number of the traffic time slot within a 5 ms subframe of LCR TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot LCR			INTEGER (0..6)	

9.2.3.24B Time Slot LCR Extension

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot LCR Extension			ENUMERATED (ts7,...)	ts7 indicates the MBSFN Special Timeslot for 1.28Mcps TDD MBSFN Dedicated Carrier.

9.2.3.25 Time Slot Status

This parameter indicates whether the TS in the cell is active or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot Status			ENUMERATED (Active, Not Active, …)	

9.2.3.26 Transmission Diversity Applied

Defines if Transmission Diversity on physical channels that may use closed loop transmit diversity is to be applied in a cell (see ref. [19]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Diversity Applied			BOOLEAN	True: Transmission Diversity shall be applied in this Cell. False: Transmission Diversity shall not be applied in this Cell.

9.2.3.26A UL Timeslot ISCP

UL Timeslot ISCP is the measured interference in a uplink timeslot at the Node B, see ref. [5].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Timeslot ISCP			INTEGER (0..127)	According to mapping in [23].

9.2.3.26B UL PhysCH SF Variation

Indicates whether variation of SF in UL is supported by Radio Link or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL PhysCH SF Variation			ENUMERATED (SF_Variation_supported, SF_Variation_NOT_supported)	

9.2.3.26C UL Timeslot Information

The *UL Timeslot Information* IE provides information on the time slot allocation for an UL DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Timeslot Information		*1..<maxnoofULts>*		
>Time Slot	M		9.2.3.23	
>Midamble Shift And Burst Type	M		9.2.3.7	
>TFCI Presence	M		9.2.1.57	
>UL Code Information	M		TDD UL Code Information 9.2.3.21A	

Range Bound	Explanation
maxnoofULts	Maximum number of Uplink time slots per Radio Link

9.2.3.26D UL Time Slot ISCP Info

The *UL Time Slot ISCP Info* IE provides information for UL Interfernce level for each time slot within the Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Time Slot ISCP Info		*1..<maxnoofULts>*		
>Time Slot	M		9.2.3.23	
>UL Timeslot ISCP	M		9.2.3.26A	

Range Bound	Explanation
maxnoofULts	Maximum number of Uplink time slots per Radio Link

9.2.3.26E UL Timeslot Information LCR

The *UL Timeslot Information* IE provides information on the time slot allocation for an UL DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
UL Timeslot Information LCR		*1..<maxnoofULtsLCR>*			–	
>Time Slot LCR	M		9.2.3.24A		–	
>Midamble Shift LCR	M		9.2.3.7A		–	
>TFCI Presence	M		9.2.1.57		–	
>UL Code Information	M		TDD UL Code Information LCR 9.2.3.21B		–	
>PLCCH Information	O		9.2.3.31		YES	reject

Range Bound	Explanation
maxnoofULtsLCR	Maximum number of Uplink time slots per Radio Link for 1.28Mcps TDD.

9.2.3.26F UL Time Slot ISCP Info LCR

The *UL Time Slot ISCP Info LCR* IE provides information for UL Interfernce level for each time slot within the Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Time Slot ISCP Info LCR		*1..<maxnoofULtsLCR>*		
>Time Slot LCR	M		9.2.3.24A	
>UL Timeslot ISCP	M		9.2.3.26A	

Range Bound	Explanation
maxnoofULtsLCR	Maximum number of Uplink time slots per Radio Link for 1.28Mcps TDD

9.2.3.26G Uplink Synchronisation Frequency

The *UL Synchronisation Frequency* IE specifies the frequency of the adjustment of the uplink transmission timing.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink Synchronisation Frequency			INTEGER (1..8)	Unit: subframe Step: 1

9.2.3.26H Uplink Synchronisation Step Size

The *UL Synchronisation Step Size* IE specifies the step size to be used for the adjustment of the uplink transmission timing.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink Synchronisation Step Size			INTEGER (1..8)	Unit: 1/8 chip Step: 1.

9.2.3.27 USCH ID

The USCH ID uniquely identifies a USCH within a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
USCH ID			INTEGER (0..255)	

9.2.3.28 USCH Information

The *USCH Information* IE provides information for USCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
USCH Information		*1..<maxnoofUSCHs>*			–	
>USCH ID	M		9.2.3.27		–	
>CCTrCH ID	M		9.2.3.3	UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	M		9.2.1.59	For USCH	–	
>Allocation/Retention Priority	M		9.2.1.1A		–	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>TNL QoS	O		9.2.1.58A		YES	ignore

Range Bound	Explanation
maxnoofUSCHs	Maximum number of USCHs for one UE

9.2.3.29 USCH Information Response

The *USCH Information Response* IE provides information for USCHs that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
USCH Information Response		*1..<maxnoofUSCHs>*		
>USCH ID	M		9.2.3.27	
>Binding ID	O		9.2.1.4	
>Transport Layer Address	O		9.2.1.63	

Range Bound	Explanation
maxnoofUSCHs	Maximum number of USCHs for one UE

9.2.3.30 SCTD Indicator

Indicates if SCTD antenna diversity is applied or not to beacon channels (see ref. [19]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SCTD Indicator			ENUMERATED (active, inactive)	

9.2.3.31 PLCCH Information

The *PLCCH Information* IE carries a PLCCH assignment for a timeslot of an UL DCH-type CCTrCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Physical Channel ID	M		9.2.1.13	
PLCCH Sequence Number	M		9.2.3.32	

9.2.3.32 PLCCH Sequence Number

This sequence number represents a portion of a PLCCH used to signal TPC / SS bits to a single UE. A value of zero indicates that the PLCCH assignment has been deleted.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PLCCH Sequence Number			INTEGER (0..14)	

9.2.3.33 Common Physical Channel ID 7.68Mcps

Common Physical Channel ID is the unique identifier for one common physical channel within a cell for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Physical Channel ID 7.68 Mcps			INTEGER (0..511)	

9.2.3.34 TDD Channelisation Code 7.68Mcps

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In 7.68Mcps TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code that can have a spreading factor of 1, 2, 4, 8, 16 or 32.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Channelisation Code			ENUMERATED((1/1), (2/1), (2/2), (4/1), .. (4/4), (8/1), .. (8/8), (16/1), .. (16/16), (32/1), .. (32,32),…)	

9.2.3.35 Midamble Shift And Burst Type 7.68Mcps

This information element indicates burst type and midamble allocation for burst types 1,2 and 3 for 7.68Mcps TDD.

Three different midamble allocation schemes exist:

Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL)

Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only)

UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL)

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE *Burst Type*				
>Type1				
>>Midamble Configuration Burst Type 1 And 3	M		ENUMERATED (4, 8, 16)	As defined in [19]
>>CHOICE *Midamble Allocation Mode*	M			
>>>Default Midamble			NULL	
>>>Common Midamble			NULL	
>>>UE Specific Midamble				
>>Midamble Shift Long	M		INTEGER (0..15)	
>Type2				
>>Midamble Configuration Burst Type 2	M		ENUMERATED (4, 8)	As defined in [19]
>>CHOICE *Midamble Allocation Mode*	M			
>>>Default Midamble			NULL	
>>>Common Midamble			NULL	
>>>UE Specific Midamble				
>>Midamble Shift Short	M		INTEGER (0..7)	
>Type3				UL only
>>Midamble Configuration Burst Type 1 And 3	M		ENUMERATED (4, 8, 16)	As defined in [19]
>>CHOICE *Midamble Allocation Mode*	M			
>>>Default Midamble			NULL	
>>>UE Specific Midamble				
>>Midamble Shift Long	M		INTEGER (0..15)	

9.2.3.36 Common Physical Channel Status Information 7.68Mcps

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Physical Channel ID 7.68 Mcps	M		9.2.3.33	
Resource Operational State	M		9.2.1.52	
Availability Status	M		9.2.1.2	

9.2.3.37 Neighbouring TDD Cell Measurement Information 7.68Mcps

This IE provides information on the 7.68 Mcps TDD neighbouring cells used for the purpose of measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time Slot* IE and *Midamble Shift And Burst Type 7.68Mcps* IE shall be included if available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UC-Id	M		9.2.1.65B	
UARFCN	M		9.2.1.65	Corresponds to Nt [15]
Cell Parameter ID	M		9.2.3.4	
Time Slot	O		9.2.3.23	
Midamble Shift And Burst Type 7.68Mcps	O		9.2.3.35	

9.2.3.38 UL Timeslot Information 7.68Mcps TDD

The *UL Timeslot Information* IE provides information on the time slot allocation for an UL DPCH for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Timeslot Information		*1..<maxnoofULts>*		
>Time Slot	M		9.2.3.23	
>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35	
>TFCI Presence	M		9.2.1.57	
>UL Code Information	M		TDD UL Code Information 7.68Mcps TDD 9.2.3.40	

Range Bound	Explanation
maxnoofULts	Maximum number of Uplink time slots per Radio Link

9.2.3.39 DL Timeslot Information 7.68Mcps TDD

The *DL Timeslot Information* IE provides information for DL Time slot to be established for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Timeslot Information		*1..<maxnoofDLts>*		
>Time Slot	M		9.2.3.23	
>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35	
>TFCI Presence	M		9.2.1.57	
>DL Code Information	M		TDD DL Code Information 7.68Mcps TDD 9.2.3.41	

Range Bound	Explanation
maxnoofDLts	Maximum number of Downlink time slots per Radio Link

9.2.3.40 TDD UL Code Information 7.68Mcps TDD

The *TDD UL Code Information 7.68Mcps TDD* IE provides information for UL Code to be established for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD UL Code Information		*1..<maxnoofDPCHs>*		
>DPCH ID	M		9.2.3.5	
>TDD Channelisation Code 7.68Mcps	M		9.2.3.34	

Range Bound	Explanation
maxnoofDPCHs	Maximum number of uplink DPCHs in one CCTrCH at 7.68Mcps

9.2.3.41 TDD DL Code Information 7.68Mcps TDD

The *TDD Code Information 7.68Mcps TDD* IE provides DL Code information for the RL for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD DL Code Information		*1..<maxnoofDPCHs768>*		
>DPCH ID	M		9.2.3.5	
>TDD Channelisation Code 7.68Mcps	M		9.2.3.34	

Range Bound	Explanation
maxnoofDPCHs768	Maximum number of downlink DPCHs in one CCTrCH at 7.68Mcps

9.2.3.42 DPCH ID 7.68Mcps

The *DPCH ID 7.68Mcps* identifies unambiguously a DPCH inside a downlink Radio Link for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPCH ID			INTEGER (0..479)	

9.2.3.43 PDSCH ID 7.68Mcps

The *PDSCH ID 7.68Mcps* identifies unambiguously a PDSCH inside a cell for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PDSCH ID			INTEGER (0..511)	

9.2.3.44 Max E-RUCCH Midamble Shift

Indicates the maximum number of Midamble shifts to be used in a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max E-RUCCH Midamble Shift			ENUMERATED (4, 8,…,16)	

9.2.3.45 E-PUCH Information

The *E-PUCH Information* IE provides parameters to configure the E-PUCH physical channel for 3.84Mcps TDD and 7.68 Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Minimum code rate	M		INTEGER (0..63)	Unit: - Range: 0.055 ..1 Step: 0.015
Maximum code rate	M		INTEGER (0..63)	Unit: - Range: 0.055 ..1 Step: 0.015
HARQ Info for E-DCH	M		ENUMERATED (rv0, rvtable)	'rv0' indicates that the UE will only use E_DCH RV index 0. 'rvtable' indicates that the UE will use an RSN based RV index as specified in [8]
$N_{E\text{-}UCCH}$	M		INTEGER (1..12)	Number of slots that are required to carry TPC and TFCI (consecutively allocated slots beginning with the first).

9.2.3.45a E-PUCH Information LCR

The *E-PUCH Information LCR* IE provides parameters to configure the E-PUCH physical channel for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Minimum code rate	M		INTEGER (0..63)	Unit: - Range: 0.055 ..1 Step: 0.015
Maximum code rate	M		INTEGER (0..63)	Unit: - Range: 0.055 ..1 Step: 0.015
HARQ Info for E-DCH	M		ENUMERATED (rv0, rvtable)	'rv0' indicates that the UE will only use E_DCH RV index 0. 'rvtable' indicates that the UE will use an RSN based RV index as specified in [8]
PRXdes_base	M		INTEGER (-112..-50)	dBm. Reference Desired RX power level for E-PUCH. Reference to $P_{e\text{-}base}$ in [21]
E-PUCH TPC Step Size	M		9.2.3.21a	
E-AGCH TPC Step Size	M		9.2.3.21	

9.2.3.46 E-TFCS Information TDD

Whereas the related E-DCH Transport Block sizes are standardised in [32] this IE gives details on the Reference Betas.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Reference Beta Information QPSK		*1..<maxnoofRefbetas>*		
>Reference Code Rate	M		INTEGER (0..10)	Unit: - Range: 0 ..1 Step: 0.1
>Reference Beta	M		INTEGER(-15..16)	Unit: - Range: -15..+16 Step: 1 dB
Reference Beta Information 16QAM		1..<maxnoofRefbetas>		
>Reference Code Rate	M		INTEGER (0..10)	Unit: - Range: 0 ..1 Step: 0.1
>Reference Beta	M		INTEGER(-15..16)	Unit: - Range: -15..+16 Step: 1 dB

Range Bound	Explanation
maxnoofRefbetas	Maximum number of signalled reference betas

9.2.3.47 E-DCH MAC-d Flows Information TDD

The *E-DCH MAC-d Flows Information TDD* IE is used for the establishment of E-DCH MAC-d flows for TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flow Specific Information		*1..<maxnoofEDCHMACdFlows>*		
>E-DCH MAC-d Flow ID	M		9.2.1.74	
>Allocation/Retention Priority	M		9.2.1.1A	
>TNL QoS	O		9.2.1.58A	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.
>Payload CRC Presence Indicator	M		9.2.1.49	
>Maximum Number Of Retransmissions For E-DCH	M		9.2.1.81	
>E-DCH HARQ Power Offset TDD	M		9.2.3.61	
>E-DCH MAC-d Flow Multiplexing List	O		9.2.1.69	
>E-DCH Grant TypeTDD	M		9.2.3.53	
>E-DCH Logical Channel Information	M		9.2.1.71	
>E-DCH MAC-d Flow Retransmission Timer	O		9.2.3.61a	Mandatory for LCR TDD. Not applicable for 3.84Mcps TDD and 7.68Mcps TDD.

Range Bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows

9.2.3.48 E-DCH Non-scheduled Grant Information TDD

The *E-DCH Non-scheduled Grant Information TDD* IE is used to specify the details of a non-scheduled grant for TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timeslot Resource Related Information	M		9.2.3.54	
Power Resource Related Information	M		9.2.3.55	
Repetition Period	M		9.2.3.16	
Repetition Length	M		9.2.3.15	
TDD E-PUCH Offset	M		9.2.3.56	
TDD Channelisation Code	M		9.2.3.19	

9.2.3.48a E-DCH Non-scheduled Grant Information LCR TDD

Only for 1.28Mcps TDD. The *E-DCH Non-scheduled Grant Information LCR TDD* IE is used to specify the details of a non-scheduled grant for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Timeslot Resource Related Information LCR	M		9.2.3.54a		–	
Power Resource Related Information	M		9.2.3.55		–	
Repetition Period	M		9.2.3.16		–	
Repetition Length	M		9.2.3.15		–	
Subframe Number	M		ENUMERATED (0,1)	Used to indicate from which subframe of the Radio Frame indicated by *TDD E-PUCH Offset* IE the physical resources are assigned to the E-DCH Non-scheduled Grant.	–	
TDD E-PUCH Offset	M		9.2.3.56		–	
TDD Channelisation Code	M		9.2.3.19		–	
$N_{E\text{-}UCCH}$	M		INTEGER (1..8)	Number of E-UCCH and TPC instances within an E-DCH TTI. Details are described in [19] .	–	
E-HICH Information		*1*				
>E-HICH ID TDD	M		9.2.3.51a	If the *Extended E-HICH ID TDD* IE is included in the *E-HICH Information* IE, the *E-HICH ID TDD* IE shall be ignored.	–	
>Signature Sequence Group Index	M		INTEGER (0..19)		–	
>Extended E-HICH ID TDD	O		9.2.3.51b	Applicable to 1.28Mcps TDD only, the *Extended E-HICH ID TDD* IE shall be used if the E-HICH identity has a value larger than 31.	YES	ignore

9.2.3.49 E-DCH TDD Information

The *E-DCH TDD Information* specifies the details of the maximum bit rate and processing overload level.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH TDD Maximum Bitrate	O		9.2.3.57	
E-DCH Processing Overload Level	O		9.2.1.79	
E-DCH Power Offset for Scheduling Info	O		9.2.1.85	

9.2.3.49a E-DCH TDD Information LCR

Only for 1.28Mcps TDD. The *E-DCH TDD Information LCR* IE specifies the details of the UE physical layer category, Node B processing overload level and power offset for scheduling info.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH Physical Layer Category LCR	O		9.2.3.67	If the *Extended E-DCH Physical Layer Category LCR* IE is included in the *E-DCH TDD Information LCR IE,* the *E-DCH Physical Layer Category LCR IE* shall be ignored.	–	
E-DCH Processing Overload Level	O		9.2.1.79		–	
E-DCH Power Offset for Scheduling Info	O		9.2.1.85		–	
Extended E-DCH Physical Layer Category LCR	O		9.2.3.67A	The *Extended E-DCH Physical Layer Category LCR* IE shall be used if the E-DCH Physical Layer Category has a value larger than 5.	YES	reject

9.2.3.50 E-DCH TDD Information Response

The *E-DCH TDD Information Response* IE provides information for E-DCH MAC-d flows that have been established or modified. It also provides additional E-DCH information determined within the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH TDD MAC-d Flow Specific Information Response		*0..<maxnoofEDCHMACdFlows>*			–	
>E-DCH MAC-d Flow ID	M		9.2.1.74		–	
>Binding ID	O		9.2.1.4		–	
>Transport Layer Address	O		9.2.1.63		–	
E-AGCH Specific Information Response TDD		*0..<maxNoOfEAGCH codes>*			–	
>E-AGCH ID TDD	M		9.2.3.51		–	
E-RNTI	M		9.2.1.75		–	
Scheduled E-HICH Specific Information Response 1.28Mcps TDD		*0..<maxNoOfEHICHcodes>*		1.28Mcps TDD only	–	
>EI	M		INTEGER (0..3)	E-HICH indication which is used to indicate UE on which E-HICH the feedback info is carried.	–	
>E-HICH ID TDD	M		9.2.3.51a	If the *Extended E-HICH ID TDD* IE is included in the *E-HICH Information* IE, the *E-HICH ID TDD* IE shall be ignored.	–	
>Extended E-HICH ID TDD	O		9.2.3.51b	Applicable to 1.28Mcps TDD only, the *Extended E-HICH ID TDD* IE shall be used if the E-HICH identity has a value larger than 31.	YES	ignore

Range bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of MAC-d flows
maxnoofEAGCHcodes	Maximum number of E-AGCHs assigned to one UE
maxNoOfEHICHcodes	Maximum number of E-HICHs assigned to one UE

9.2.3.51 E-AGCH ID TDD

The *E-AGCH ID* identifies unambiguously an E-AGCH inside a cell for TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-AGCH ID			INTEGER (0..31,...,32..255)	

9.2.3.51a E-HICH ID TDD

The *E-HICH ID TDD* IE identifies unambiguously an E-HICH inside a cell for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-HICH ID TDD			INTEGER (0..31)	

9.2.3.51b Extended E-HICH ID TDD

The *Extended E-HICH ID TDD* IE identifies unambiguously an E-HICH inside a cell for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended E-HICH ID TDD			INTEGER (32..255)	

9.2.3.52 E-DCH TDD Information to Modify

The *E-DCH TDD Information to Modify* IE is used for the modification of an E-DCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flow Specific Information		*0..<maxnoofEDCHMACdFlows>*		
>E-DCH MAC-d Flow ID	M		9.2.1.74	
>Allocation/Retention Priority	O		9.2.1.1A	
>Transport Bearer Request Indicator	M		9.2.1.62A	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.
>TNL QoS	O		9.2.1.58A	
>Maximum Number Of Retransmissions for E-DCH	O		9.2.1.81	
>E-DCH HARQ Power Offset TDD	O		9.2.3.61	
>E-DCH MAC-d Flow Multiplexing List	O		9.2.1.69	
>E-DCH Grant Type	O		9.2.3.53	
>E-DCH Logical Channel To Add	O		E-DCH Logical Channel Information 9.2.1.71	
>E-DCH Logical Channel To Modify	O		9.2.1.72	
>**E-DCH Logical Channel To Delete**		*0..<maxnooflogicalchannels>*		
>>Logical Channel ID	M		9.2.1.80	
>E-DCH MAC-d Flow Retransmission Timer	O		9.2.3.61a	LCR TDD only.
MAC-e Reset Indicator	O		9.2.1.83	

Range Bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows
maxnooflogicalchannels	Maximum number of logical channels

9.2.3.53 E-DCH Grant Type TDD

The *E-DCH Grant Type* identifies whether a MAC-d flow is scheduled or non-scheduled.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Grant Type			ENUMERATED (Scheduled, Non-scheduled)	

9.2.3.54 Timeslot Resource Related Information

The *Timeslot Resource Related Information* is a bitmap indicating which of the timeslots configured for E-DCH are allocated for non-scheduled transmissions.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timeslot Resource Related Information			BIT STRING (13)	

9.2.3.54a Timeslot Resource Related Information LCR

Only for 1.28Mcps TDD. The *Timeslot Resource Related Information LCR* IE is a bitmap indicating which of the timeslots configured for E-DCH are allocated for non-scheduled transmissions.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timeslot Resource Related Information LCR			BIT STRING (5)	

9.2.3.55 Power Resource Related Information

The *Power Resource Related Information* specifies the maximum allowed E-PUCH power resource (dB relative to $P_{e\text{-}base}$) that the UE may use for non-scheduled transmissions.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power Resource Related Information			INTEGER (1..32)	

9.2.3.56 E-PUCH Offset

The *E-PUCH Offset* represents the CFN offset at which a non-scheduled E-DCH grant begins.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-PUCH Offset			INTEGER (0..255)	

9.2.3.57 E-DCH TDD Maximum Bitrate

The *E-DCH TDD Maximum Bitrate* parameter indicates the Maximum Bitrate for an E-DCH in TDD mode.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH TDD Maximum Bitrate			INTEGER (0..9201,…)	Bitrate on transport block level. Unit is kbits per second.

9.2.3.58 LTGI Presence

The *LTGI Presence* indicates to the Node B whether it shall use the Long Term Grant Indicator within E-DCH grants issued in a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
LTGI Indicator			BOOLEAN	True = LTGI shall be included

9.2.3.59 E-HICH Time Offset

The *E-HICH Time Offset* (aka $n_{E\text{-}HICH}$ [19])is determined by the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-HICH Time Offset			INTEGER (4..44)	

9.2.3.59a E-HICH Time Offset LCR

Only for 1.28Mcps TDD. The *E-HICH Time Offset LCR* IE(aka $n_{E\text{-}HICH}$ [19])is determined by the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-HICH Time Offset LCR			INTEGER (4..15)	

9.2.3.60 E-DCH TDD Capacity Consumption Law

The capacity consumption law indicates to the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the number of E-AGCH.

This capacity consumption law indicates the consumption law to be used with the following procedures:

- Physical Shared Channel Reconfiguration.

When one are more radio links have been configured to use E-DCH (via Radio Link Setup, Radio Link Addition or radio link reconfiguration procedures) the cost given in the consumption law shall be debited from the Capacity Credit, whereas it shall credited to the Capacity Credit for the Radio Link Deletion procedure that removes the last radio link configured for E-DCH.

If the modelling of the internal resource capability of the Node B is modelled independently for the Uplink and Downlink, the DL cost shall be applied to the DL or Global Capacity Credit and the UL Cost shall be applied to the UL Capacity Credit. If it is modelled as shared resources, both the DL costs and the UL costs shall be applied to the DL or Global Capacity Credit.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Cost	M		INTEGER (0..65535)	Cost per timeslot of the E-DCH. If not present, zero cost shall be applied.
DL Cost	O		INTEGER (0..65535)	Cost per E-AGCH or E-HICH configured. If not present, zero cost shall be applied. .

9.2.3.61 E-DCH HARQ Power Offset TDD

The *E-DCH HARQ Power Offset TDD* is the power offset measured in dB.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH HARQ Power Offset TDD			INTEGER (0..6)	

9.2.3.61a E-DCH MAC-d Flow Retransmission Timer

Only for 1.28Mcps TDD. The *E-DCH MAC-d Flow Retransmission Timer* IE is used in the E-DCH retransmission control as defined in [32].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flow Retransmission Timer			ENUMERATED (10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 110, 120, 140, 160, 200, 240, 280, 320, 400, 480, 560,…)	Unit: ms Node B may use this value to stop the re-transmission of the corresponding MAC-e PDU.

9.2.3.62 SNPL Reporting Type

The *SNPL Reporting Type* indicates to the Node B whether the UEs in a cell shall use the type 1 or type 2 Serving and Neighbour Cell Pathloss metric [21].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SNPL Reporting Type			ENUMERATED (type1, type2)	

9.2.3.63 Maximum Generated Received Total Wide Band Power in Other Cells

The *Maximum Generated Received Total Wide Band Power in Other Cells* indicates the maximum aggregate UL interference that may be generated from scheduled transmissions into other (non-serving) cells.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Generated Received Total Wide Band Power in Other Cells			INTEGER (0..621)	The Value mapping is according to mapping for measurement type "Received Total Wide Band Power" in [23].

9.2.3.64 E-DCH Non-scheduled Grant Information 7.68Mcps TDD

The *E-DCH Non-scheduled Grant Information 7.68Mcps TDD* IE is used to specify the details of a non-scheduled grant for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timeslot Resource Related Information	M		9.2.3.54	
Power Resource Related Information	M		9.2.3.55	
Repetition Period	M		9.2.3.16	
Repetition Length	M		9.2.3.15	
TDD E-PUCH Offset	M		9.2.3.56	
TDD Channelisation Code 7.68Mcps	M		9.2.3.34	

9.2.3.65 E-DCH TDD Information 7.68Mcps

The *E-DCH TDD Information 7.68Mcps* specifies the details of the maximum bit rate and processing overload level for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH TDD Maximum Bitrate 7.68Mcps	O		9.2.3.66	
E-DCH Processing Overload Level	O		9.2.1.79	
E-DCH Power Offset for Scheduling Info	O		9.2.1.85	

9.2.3.66 E-DCH TDD Maximum Bitrate 7.68Mcps

The *E-DCH TDD Maximum Bitrate 7.68Mcps* parameter indicates the Maximum Bitrate for an E-DCH in 7.68Mcps TDD mode.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH TDD Maximum Bitrate 7.68Mcps			INTEGER (0..17713,…)	Bitrate on transport block level. Unit is kbits per second.

9.2.3.67 E-DCH Physical Layer Category LCR

Only for 1.28Mcps TDD. The *E-DCH Physical Layer Category LCR* IE parameter indicates the E-DCH physical layer capability of UE in LCR TDD mode.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Physical Layer Category LCR			INTEGER(1..5)	As defined in [33]

9.2.3.67A Extended E-DCH Physical Layer Category LCR

Only for 1.28Mcps TDD. The *Extended E-DCH Physical Layer Category LCR* IE parameter indicates the E-DCH physical layer capability of UE in LCR TDD mode.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended E-DCH Physical Layer Category LCR			INTEGER(6,...)	As defined in [33]

9.2.3.68 E-HICH Type

The *E-HICH Type* IE identifies whether a E-HICH is scheduled or non-scheduled inside a cell for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-HICH Type			ENUMERATED (Scheduled, Non-scheduled)	

9.2.3.69 Maximum Target Received Total Wide Band Power LCR

The *Maximum Target Received Total Wide Band Power LCR* indicates the maximum target UL interference for a certain cell under CRNC, including received wide band power from all sources.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Target Received Total Wide Band Power LCR			INTEGER (0..621)	The Value mapping is according to mapping for measurement type "Received Total Wide Band Power" in [23].

9.2.3.70 MBSFN Only Mode Indicator

The MBSFN only mode indicator indicates from CRNC to the Node B whether the cell is setup for MBSFN only mode for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MBSFN Only Mode Indicator			ENUMERATED (MBSFN Only Mode)	

9.2.3.71 MBSFN Only Mode Capability

This parameter defines the MBSFN only mode capability for a local cell for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MBSFN Only Mode Capability			ENUMERATED (MBSFN Only Mode capable, MBSFN Only Mode non capable)	

9.3 Message and Information Element Abstract Syntax (with ASN.1)

9.3.0 General

Subclause 9.3 presents the Abstract Syntax of NBAP protocol with ASN.1. In case there is contradiction between the ASN.1 definition in this subclause and the tabular format in subclauses 9.1 and 9.2, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, where the tabular format shall take precedence.

The ASN.1 definition specifies the structure and content of NBAP messages. NBAP messages can contain any IEs specified in the object set definitions for that message without the order or number of occurrence being restricted by ASN.1. However, for this version of the standard, a sending entity shall construct a NBAP message according to the PDU definitions module and with the following additional rules (Note that in the following IE means an IE in the object set with an explicit id. If one IE needed to appear more than once in one object set, then the different occurrences have different IE ids):

- IEs shall be ordered (in an IE container) in the order they appear in object set definitions.
- Object set definitions specify how many times IEs may appear. An IE shall appear exactly once if the presence field in an object has value "mandatory". An IE may appear at most once if the presence field in an object has value "optional" or "conditional". If in a tabular format there is multiplicity specified for an IE (i.e. an IE list) then in the corresponding ASN.1 definition the list definition is separated into two parts. The first part defines an IE container list where the list elements reside. The second part defines list elements. The IE container list appears as an IE of its own. For this version of the standard an IE container list may contain only one kind of list elements.

If a NBAP message that is not constructed as defined above is received, this shall be considered as Abstract Syntax Error, and the message shall be handled as defined for Abstract Syntax Error in subclause 10.3.6.

9.3.1 Usage of Private Message mechanism for non-standard use

The private message mechanism for non-standard use may be used.

- For special operator- (and/or vendor) specific features considered not to be part of the basic functionality, i.e. the functionality required for a complete and high-quality specification in order to guarantee multi-vendor inter-operability.
- By vendors for research purposes, e.g. to implement and evaluate new algorithms/features before such features are proposed for standardisation.

The private message mechanism shall not be used for basic functionality. Such functionality shall be standardised.

9.3.2 Elementary Procedure Definitions

```
-- **************************************************************
--
-- Elementary Procedure definitions
--
-- **************************************************************

NBAP-PDU-Descriptions {
```

```
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-PDU-Descriptions (0) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- IE parameter types from other modules.
--
-- **************************************************************

IMPORTS
    Criticality,
    ProcedureID,
    MessageDiscriminator,
    TransactionID
FROM NBAP-CommonDataTypes

    CommonTransportChannelSetupRequestFDD,
    CommonTransportChannelSetupRequestTDD,
    CommonTransportChannelSetupResponse,
    CommonTransportChannelSetupFailure,
    CommonTransportChannelReconfigurationRequestFDD,
    CommonTransportChannelReconfigurationRequestTDD,
    CommonTransportChannelReconfigurationResponse,
    CommonTransportChannelReconfigurationFailure,
    CommonTransportChannelDeletionRequest,
    CommonTransportChannelDeletionResponse,
    BlockResourceRequest,
    BlockResourceResponse,
    BlockResourceFailure,
    UnblockResourceIndication,
    AuditFailure,
    AuditRequiredIndication,
    AuditRequest,
    AuditResponse,
    CommonMeasurementInitiationRequest,
    CommonMeasurementInitiationResponse,
    CommonMeasurementInitiationFailure,
    CommonMeasurementReport,
    CommonMeasurementTerminationRequest,
    CommonMeasurementFailureIndication,
    CellSetupRequestFDD,
    CellSetupRequestTDD,
    CellSetupResponse,
    CellSetupFailure,
    CellReconfigurationRequestFDD,
    CellReconfigurationRequestTDD,
    CellReconfigurationResponse,
    CellReconfigurationFailure,
    CellDeletionRequest,
    CellDeletionResponse,
```

```
    InformationExchangeInitiationRequest,
    InformationExchangeInitiationResponse,
    InformationExchangeInitiationFailure,
    InformationReport,
    InformationExchangeTerminationRequest,
    InformationExchangeFailureIndication,
    BearerRearrangementIndication,
    ResourceStatusIndication,
    SystemInformationUpdateRequest,
    SystemInformationUpdateResponse,
    SystemInformationUpdateFailure,
    ResetRequest,
    ResetResponse,
    RadioLinkActivationCommandFDD,
    RadioLinkActivationCommandTDD,
    RadioLinkPreemptionRequiredIndication,
    RadioLinkSetupRequestFDD,
    RadioLinkSetupRequestTDD,
    RadioLinkSetupResponseFDD,
    RadioLinkSetupResponseTDD,
    RadioLinkSetupFailureFDD,
    RadioLinkSetupFailureTDD,
    RadioLinkAdditionRequestFDD,
    RadioLinkAdditionRequestTDD,
    RadioLinkAdditionResponseFDD,
    RadioLinkAdditionResponseTDD,
    RadioLinkAdditionFailureFDD,
    RadioLinkAdditionFailureTDD,
    RadioLinkParameterUpdateIndicationFDD,
    RadioLinkParameterUpdateIndicationTDD,
    RadioLinkReconfigurationPrepareFDD,
    RadioLinkReconfigurationPrepareTDD,
    RadioLinkReconfigurationReady,
    RadioLinkReconfigurationFailure,
    RadioLinkReconfigurationCommit,
    RadioLinkReconfigurationCancel,
    RadioLinkReconfigurationRequestFDD,
    RadioLinkReconfigurationRequestTDD,
    RadioLinkReconfigurationResponse,
    RadioLinkDeletionRequest,
    RadioLinkDeletionResponse,
    DL-PowerControlRequest,
    DL-PowerTimeslotControlRequest,
    DedicatedMeasurementInitiationRequest,
    DedicatedMeasurementInitiationResponse,
    DedicatedMeasurementInitiationFailure,
    DedicatedMeasurementReport,
    DedicatedMeasurementTerminationRequest,
    DedicatedMeasurementFailureIndication,
    RadioLinkFailureIndication,
    RadioLinkRestoreIndication,
    CompressedModeCommand,
    ErrorIndication,
    PrivateMessage,
```

```
    PhysicalSharedChannelReconfigurationRequestTDD,
    PhysicalSharedChannelReconfigurationRequestFDD,
    PhysicalSharedChannelReconfigurationResponse,
    PhysicalSharedChannelReconfigurationFailure,
    CellSynchronisationInitiationRequestTDD,
    CellSynchronisationInitiationResponseTDD,
    CellSynchronisationInitiationFailureTDD,
    CellSynchronisationReconfigurationRequestTDD,
    CellSynchronisationReconfigurationResponseTDD,
    CellSynchronisationReconfigurationFailureTDD,
    CellSynchronisationAdjustmentRequestTDD,
    CellSynchronisationAdjustmentResponseTDD,
    CellSynchronisationAdjustmentFailureTDD,
    CellSynchronisationReportTDD,
    CellSynchronisationTerminationRequestTDD,
    CellSynchronisationFailureIndicationTDD,
    MBMSNotificationUpdateCommand
FROM NBAP-PDU-Contents

    id-audit,
    id-auditRequired,
    id-blockResource,
    id-cellDeletion,
    id-cellReconfiguration,
    id-cellSetup,
    id-cellSynchronisationInitiation,
    id-cellSynchronisationReconfiguration,
    id-cellSynchronisationReporting,
    id-cellSynchronisationTermination,
    id-cellSynchronisationFailure,
    id-commonMeasurementFailure,
    id-commonMeasurementInitiation,
    id-commonMeasurementReport,
    id-commonMeasurementTermination,
    id-commonTransportChannelDelete,
    id-commonTransportChannelReconfigure,
    id-commonTransportChannelSetup,
    id-compressedModeCommand,
    id-dedicatedMeasurementFailure,
    id-dedicatedMeasurementInitiation,
    id-dedicatedMeasurementReport,
    id-dedicatedMeasurementTermination,
    id-downlinkPowerControl,
    id-downlinkPowerTimeslotControl,
    id-errorIndicationForDedicated,
    id-errorIndicationForCommon,
    id-informationExchangeFailure,
    id-informationExchangeInitiation,
    id-informationReporting,
    id-informationExchangeTermination,
    id-BearerRearrangement,
    id-mBMSNotificationUpdate,
    id-physicalSharedChannelReconfiguration,
    id-privateMessageForDedicated,
```

```
    id-privateMessageForCommon,
    id-radioLinkActivation,
    id-radioLinkAddition,
    id-radioLinkDeletion,
    id-radioLinkFailure,
    id-radioLinkParameterUpdate,
    id-radioLinkPreemption,
    id-radioLinkRestoration,
    id-radioLinkSetup,
    id-reset,
    id-resourceStatusIndication,
    id-cellSynchronisationAdjustment,
    id-synchronisedRadioLinkReconfigurationCancellation,
    id-synchronisedRadioLinkReconfigurationCommit,
    id-synchronisedRadioLinkReconfigurationPreparation,
    id-systemInformationUpdate,
    id-unblockResource,
    id-unSynchronisedRadioLinkReconfiguration
FROM NBAP-Constants;

-- **************************************************************
--
-- Interface Elementary Procedure Class
--
-- **************************************************************

NBAP-ELEMENTARY-PROCEDURE ::= CLASS {
    &InitiatingMessage                  ,
    &SuccessfulOutcome                  OPTIONAL,
    &UnsuccessfulOutcome                OPTIONAL,
    &Outcome                            OPTIONAL,
    &messageDiscriminator               MessageDiscriminator,
    &procedureID                        ProcedureID     UNIQUE,
    &criticality                        Criticality     DEFAULT ignore
}

WITH SYNTAX {
    INITIATING MESSAGE                  &InitiatingMessage
    [SUCCESSFUL OUTCOME                 &SuccessfulOutcome]
    [UNSUCCESSFUL OUTCOME               &UnsuccessfulOutcome]
    [OUTCOME                            &Outcome]
    MESSAGE DISCRIMINATOR               &messageDiscriminator
    PROCEDURE ID                        &procedureID
    [CRITICALITY                        &criticality]
}

-- **************************************************************
--
-- Interface PDU Definition
--
-- **************************************************************

NBAP-PDU ::= CHOICE {
    initiatingMessage       InitiatingMessage,
```

```
    succesfulOutcome        SuccessfulOutcome,
    unsuccesfulOutcome      UnsuccessfulOutcome,
    outcome                 Outcome,
    ...
}

InitiatingMessage ::= SEQUENCE {
    procedureID             NBAP-ELEMENTARY-PROCEDURE.&procedureID  ({NBAP-ELEMENTARY-PROCEDURES}),
    criticality             NBAP-ELEMENTARY-PROCEDURE.&criticality  ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    messageDiscriminator    NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID           TransactionID,
    value                   NBAP-ELEMENTARY-PROCEDURE.&InitiatingMessage({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

SuccessfulOutcome ::= SEQUENCE {
    procedureID             NBAP-ELEMENTARY-PROCEDURE.&procedureID  ({NBAP-ELEMENTARY-PROCEDURES}),
    criticality             NBAP-ELEMENTARY-PROCEDURE.&criticality  ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    messageDiscriminator    NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID           TransactionID,
    value                   NBAP-ELEMENTARY-PROCEDURE.&SuccessfulOutcome({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

UnsuccessfulOutcome ::= SEQUENCE {
    procedureID             NBAP-ELEMENTARY-PROCEDURE.&procedureID  ({NBAP-ELEMENTARY-PROCEDURES}),
    criticality             NBAP-ELEMENTARY-PROCEDURE.&criticality  ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    messageDiscriminator    NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID           TransactionID,
    value                   NBAP-ELEMENTARY-PROCEDURE.&UnsuccessfulOutcome({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

Outcome ::= SEQUENCE {
    procedureID             NBAP-ELEMENTARY-PROCEDURE.&procedureID  ({NBAP-ELEMENTARY-PROCEDURES}),
    criticality             NBAP-ELEMENTARY-PROCEDURE.&criticality  ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    messageDiscriminator    NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID           TransactionID,
    value                   NBAP-ELEMENTARY-PROCEDURE.&Outcome  ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

-- **************************************************************
--
-- Interface Elementary Procedure List
--
-- **************************************************************

NBAP-ELEMENTARY-PROCEDURES NBAP-ELEMENTARY-PROCEDURE ::= {
    NBAP-ELEMENTARY-PROCEDURES-CLASS-1          |
    NBAP-ELEMENTARY-PROCEDURES-CLASS-2          ,
    ...
}

NBAP-ELEMENTARY-PROCEDURES-CLASS-1 NBAP-ELEMENTARY-PROCEDURE ::= {
    cellSetupFDD                                |
    cellSetupTDD                                |
    cellReconfigurationFDD                      |
```

```
    cellReconfigurationTDD                              |
    cellDeletion                                        |
    commonTransportChannelSetupFDD                      |
    commonTransportChannelSetupTDD                      |
    commonTransportChannelReconfigureFDD                |
    commonTransportChannelReconfigureTDD                |
    commonTransportChannelDelete                        |
    audit                                               |
    blockResource                                       |
    radioLinkSetupFDD                                   |
    radioLinkSetupTDD                                   |
    systemInformationUpdate                             |
    commonMeasurementInitiation                         |
    radioLinkAdditionFDD                                |
    radioLinkAdditionTDD                                |
    radioLinkDeletion                                   |
    reset                                               |
    synchronisedRadioLinkReconfigurationPreparationFDD  |
    synchronisedRadioLinkReconfigurationPreparationTDD  |
    unSynchronisedRadioLinkReconfigurationFDD           |
    unSynchronisedRadioLinkReconfigurationTDD           |
    dedicatedMeasurementInitiation                      |
    physicalSharedChannelReconfigurationTDD             ,
    ...,
    informationExchangeInitiation                       |
    cellSynchronisationInitiationTDD                    |
    cellSynchronisationReconfigurationTDD               |
    cellSynchronisationAdjustmentTDD                    |
    physicalSharedChannelReconfigurationFDD
}

NBAP-ELEMENTARY-PROCEDURES-CLASS-2 NBAP-ELEMENTARY-PROCEDURE ::= {
    resourceStatusIndication                            |
    auditRequired                                       |
    commonMeasurementReport                             |
    commonMeasurementTermination                        |
    commonMeasurementFailure                            |
    synchronisedRadioLinkReconfigurationCommit          |
    synchronisedRadioLinkReconfigurationCancellation    |
    radioLinkFailure                                    |
    radioLinkPreemption                                 |
    radioLinkRestoration                                |
    dedicatedMeasurementReport                          |
    dedicatedMeasurementTermination                     |
    dedicatedMeasurementFailure                         |
    downlinkPowerControlFDD                             |
    downlinkPowerTimeslotControl                        |
    compressedModeCommand                               |
    unblockResource                                     |
    errorIndicationForDedicated                         |
    errorIndicationForCommon                            |
    privateMessageForDedicated                          |
    privateMessageForCommon                             ,
    ...,
```

```
    informationReporting                            |
    informationExchangeTermination                  |
    informationExchangeFailure                      |
    cellSynchronisationReportingTDD                 |
    cellSynchronisationTerminationTDD               |
    cellSynchronisationFailureTDD                   |
    bearerRearrangement                             |
    radioLinkActivationFDD                          |
    radioLinkActivationTDD                          |
    radioLinkParameterUpdateFDD                     |
    radioLinkParameterUpdateTDD                     |
    mBMSNotificationUpdate
}

-- **************************************************************
--
-- Interface Elementary Procedures
--
-- **************************************************************

-- Class 1

-- *** CellSetup (FDD) ***
cellSetupFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CellSetupRequestFDD
    SUCCESSFUL OUTCOME      CellSetupResponse
    UNSUCCESSFUL OUTCOME    CellSetupFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-cellSetup, ddMode fdd }
    CRITICALITY             reject
}

-- *** CellSetup (TDD) ***
cellSetupTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CellSetupRequestTDD
    SUCCESSFUL OUTCOME      CellSetupResponse
    UNSUCCESSFUL OUTCOME    CellSetupFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-cellSetup, ddMode tdd }
    CRITICALITY             reject
}

-- *** CellReconfiguration(FDD) ***
cellReconfigurationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CellReconfigurationRequestFDD
    SUCCESSFUL OUTCOME      CellReconfigurationResponse
    UNSUCCESSFUL OUTCOME    CellReconfigurationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-cellReconfiguration, ddMode fdd }
    CRITICALITY             reject
}

-- *** CellReconfiguration(TDD) ***
cellReconfigurationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
```

```
    INITIATING MESSAGE      CellReconfigurationRequestTDD
    SUCCESSFUL OUTCOME      CellReconfigurationResponse
    UNSUCCESSFUL OUTCOME    CellReconfigurationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-cellReconfiguration, ddMode tdd }
    CRITICALITY             reject
}

-- *** CellDeletion ***
cellDeletion NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CellDeletionRequest
    SUCCESSFUL OUTCOME      CellDeletionResponse
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-cellDeletion, ddMode common }
    CRITICALITY             reject
}

-- *** CommonTransportChannelSetup (FDD) ***
commonTransportChannelSetupFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonTransportChannelSetupRequestFDD
    SUCCESSFUL OUTCOME      CommonTransportChannelSetupResponse
    UNSUCCESSFUL OUTCOME    CommonTransportChannelSetupFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonTransportChannelSetup, ddMode fdd }
    CRITICALITY             reject
}

-- *** CommonTransportChannelSetup (TDD) ***
commonTransportChannelSetupTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonTransportChannelSetupRequestTDD
    SUCCESSFUL OUTCOME      CommonTransportChannelSetupResponse
    UNSUCCESSFUL OUTCOME    CommonTransportChannelSetupFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonTransportChannelSetup, ddMode tdd }
    CRITICALITY             reject
}

-- *** CommonTransportChannelReconfigure (FDD) ***
commonTransportChannelReconfigureFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonTransportChannelReconfigurationRequestFDD
    SUCCESSFUL OUTCOME      CommonTransportChannelReconfigurationResponse
    UNSUCCESSFUL OUTCOME    CommonTransportChannelReconfigurationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonTransportChannelReconfigure, ddMode fdd }
    CRITICALITY             reject
}

-- *** CommonTransportChannelReconfigure (TDD) ***
commonTransportChannelReconfigureTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonTransportChannelReconfigurationRequestTDD
    SUCCESSFUL OUTCOME      CommonTransportChannelReconfigurationResponse
    UNSUCCESSFUL OUTCOME    CommonTransportChannelReconfigurationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonTransportChannelReconfigure, ddMode tdd }
```

```
    CRITICALITY             reject
}

-- *** CommonTransportChannelDelete ***
commonTransportChannelDelete NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonTransportChannelDeletionRequest
    SUCCESSFUL OUTCOME      CommonTransportChannelDeletionResponse
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonTransportChannelDelete, ddMode common }
    CRITICALITY             reject
}

-- *** Audit ***
audit NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      AuditRequest
    SUCCESSFUL OUTCOME      AuditResponse
    UNSUCCESSFUL OUTCOME    AuditFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-audit, ddMode common }
    CRITICALITY             reject
}

-- *** BlockResourceRequest ***
blockResource NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      BlockResourceRequest
    SUCCESSFUL OUTCOME      BlockResourceResponse
    UNSUCCESSFUL OUTCOME    BlockResourceFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-blockResource, ddMode common }
    CRITICALITY             reject
}

-- *** RadioLinkSetup (FDD) ***
radioLinkSetupFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkSetupRequestFDD
    SUCCESSFUL OUTCOME      RadioLinkSetupResponseFDD
    UNSUCCESSFUL OUTCOME    RadioLinkSetupFailureFDD
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-radioLinkSetup, ddMode fdd }
    CRITICALITY             reject
}

-- *** RadioLinkSetup (TDD) ***
radioLinkSetupTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkSetupRequestTDD
    SUCCESSFUL OUTCOME      RadioLinkSetupResponseTDD
    UNSUCCESSFUL OUTCOME    RadioLinkSetupFailureTDD
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-radioLinkSetup, ddMode tdd }
    CRITICALITY             reject
}

-- *** SystemInformationUpdate ***
systemInformationUpdate NBAP-ELEMENTARY-PROCEDURE ::= {
```

```
    INITIATING MESSAGE      SystemInformationUpdateRequest
    SUCCESSFUL OUTCOME      SystemInformationUpdateResponse
    UNSUCCESSFUL OUTCOME    SystemInformationUpdateFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-systemInformationUpdate, ddMode common }
    CRITICALITY             reject
}

-- *** Reset ***
reset NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      ResetRequest
    SUCCESSFUL OUTCOME      ResetResponse
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-reset, ddMode common }
    CRITICALITY             reject
}

-- *** CommonMeasurementInitiation ***
commonMeasurementInitiation NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonMeasurementInitiationRequest
    SUCCESSFUL OUTCOME      CommonMeasurementInitiationResponse
    UNSUCCESSFUL OUTCOME    CommonMeasurementInitiationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonMeasurementInitiation, ddMode common }
    CRITICALITY             reject
}

-- *** RadioLinkAddition (FDD) ***
radioLinkAdditionFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkAdditionRequestFDD
    SUCCESSFUL OUTCOME      RadioLinkAdditionResponseFDD
    UNSUCCESSFUL OUTCOME    RadioLinkAdditionFailureFDD
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-radioLinkAddition, ddMode fdd }
    CRITICALITY             reject
}

-- *** RadioLinkAddition (TDD) ***
radioLinkAdditionTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkAdditionRequestTDD
    SUCCESSFUL OUTCOME      RadioLinkAdditionResponseTDD
    UNSUCCESSFUL OUTCOME    RadioLinkAdditionFailureTDD
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-radioLinkAddition, ddMode tdd }
    CRITICALITY             reject
}

-- *** RadioLinkDeletion    ***
radioLinkDeletion NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkDeletionRequest
    SUCCESSFUL OUTCOME      RadioLinkDeletionResponse
    MESSAGE DISCRIMINATOR   dedicated
```

```
    PROCEDURE ID            { procedureCode id-radioLinkDeletion, ddMode common }
    CRITICALITY             reject
}

-- *** SynchronisedRadioLinkReconfigurationPreparation (FDD) ***
synchronisedRadioLinkReconfigurationPreparationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkReconfigurationPrepareFDD
    SUCCESSFUL OUTCOME      RadioLinkReconfigurationReady
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode fdd }
    CRITICALITY             reject
}

-- *** SynchronisedRadioLinkReconfigurationPreparation (TDD) ***
synchronisedRadioLinkReconfigurationPreparationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkReconfigurationPrepareTDD
    SUCCESSFUL OUTCOME      RadioLinkReconfigurationReady
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode tdd }
    CRITICALITY             reject
}

-- *** UnSynchronisedRadioLinkReconfiguration (FDD) ***
unSynchronisedRadioLinkReconfigurationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkReconfigurationRequestFDD
    SUCCESSFUL OUTCOME      RadioLinkReconfigurationResponse
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode fdd }
    CRITICALITY             reject
}

-- *** UnSynchronisedRadioLinkReconfiguration (TDD) ***
unSynchronisedRadioLinkReconfigurationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkReconfigurationRequestTDD
    SUCCESSFUL OUTCOME      RadioLinkReconfigurationResponse
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode tdd }
    CRITICALITY             reject
}

-- *** DedicatedMeasurementInitiation  ***
dedicatedMeasurementInitiation NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      DedicatedMeasurementInitiationRequest
    SUCCESSFUL OUTCOME      DedicatedMeasurementInitiationResponse
    UNSUCCESSFUL OUTCOME    DedicatedMeasurementInitiationFailure
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-dedicatedMeasurementInitiation, ddMode common }
    CRITICALITY             reject
}
```

```
-- *** PhysicalSharedChannelReconfiguration (FDD) ***
physicalSharedChannelReconfigurationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  PhysicalSharedChannelReconfigurationRequestFDD
    SUCCESSFUL OUTCOME  PhysicalSharedChannelReconfigurationResponse
    UNSUCCESSFUL OUTCOME    PhysicalSharedChannelReconfigurationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID        { procedureCode id-physicalSharedChannelReconfiguration, ddMode fdd }
    CRITICALITY         reject
}

-- *** PhysicalSharedChannelReconfiguration (TDD) ***
physicalSharedChannelReconfigurationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  PhysicalSharedChannelReconfigurationRequestTDD
    SUCCESSFUL OUTCOME  PhysicalSharedChannelReconfigurationResponse
    UNSUCCESSFUL OUTCOME    PhysicalSharedChannelReconfigurationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID        { procedureCode id-physicalSharedChannelReconfiguration, ddMode tdd }
    CRITICALITY         reject
}

-- *** InformationExchangeInitiation ***
informationExchangeInitiation NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationExchangeInitiationRequest
    SUCCESSFUL OUTCOME      InformationExchangeInitiationResponse
    UNSUCCESSFUL OUTCOME    InformationExchangeInitiationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-informationExchangeInitiation,   ddMode common }
    CRITICALITY             reject
}

-- *** CellSynchronisationInitiation (TDD only) ***
cellSynchronisationInitiationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CellSynchronisationInitiationRequestTDD
    SUCCESSFUL OUTCOME  CellSynchronisationInitiationResponseTDD
    UNSUCCESSFUL OUTCOME    CellSynchronisationInitiationFailureTDD
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID        { procedureCode id-cellSynchronisationInitiation, ddMode tdd }
    CRITICALITY         reject
}

-- *** CellSynchronisationReconfiguration (TDD only) ***
cellSynchronisationReconfigurationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CellSynchronisationReconfigurationRequestTDD
    SUCCESSFUL OUTCOME  CellSynchronisationReconfigurationResponseTDD
    UNSUCCESSFUL OUTCOME    CellSynchronisationReconfigurationFailureTDD
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID        { procedureCode id-cellSynchronisationReconfiguration, ddMode tdd }
    CRITICALITY         reject
}

-- *** CellSynchronisationAdjustment (TDD only) ***
cellSynchronisationAdjustmentTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CellSynchronisationAdjustmentRequestTDD
    SUCCESSFUL OUTCOME  CellSynchronisationAdjustmentResponseTDD
```

```
    UNSUCCESSFUL OUTCOME    CellSynchronisationAdjustmentFailureTDD
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID        { procedureCode id-cellSynchronisationAdjustment, ddMode tdd }
    CRITICALITY         reject
}

-- Class 2

-- *** ResourceStatusIndication ***
resourceStatusIndication NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      ResourceStatusIndication
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-resourceStatusIndication, ddMode common }
    CRITICALITY             ignore
}

-- *** AuditRequired ***
auditRequired NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      AuditRequiredIndication
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-auditRequired, ddMode common }
    CRITICALITY             ignore
}

-- *** CommonMeasurementReport ***
commonMeasurementReport NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonMeasurementReport
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonMeasurementReport, ddMode common }
    CRITICALITY             ignore
}

-- *** CommonMeasurementTermination ***
commonMeasurementTermination NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonMeasurementTerminationRequest
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonMeasurementTermination, ddMode common }
    CRITICALITY             ignore
}

-- *** CommonMeasurementFailure ***
commonMeasurementFailure NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonMeasurementFailureIndication
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonMeasurementFailure, ddMode common }
    CRITICALITY             ignore
}

-- *** SynchronisedRadioLinkReconfigurationCommit ***
synchronisedRadioLinkReconfigurationCommit NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkReconfigurationCommit
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-synchronisedRadioLinkReconfigurationCommit, ddMode common }
    CRITICALITY             ignore
```

```
}

-- *** SynchronisedRadioReconfigurationCancellation ***
synchronisedRadioLinkReconfigurationCancellation NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkReconfigurationCancel
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-synchronisedRadioLinkReconfigurationCancellation, ddMode common }
    CRITICALITY             ignore
}

-- *** RadioLinkFailure ***
radioLinkFailure NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkFailureIndication
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-radioLinkFailure, ddMode common }
    CRITICALITY             ignore
}

-- *** RadioLinkPreemption ***
radioLinkPreemption NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkPreemptionRequiredIndication
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID        { procedureCode id-radioLinkPreemption, ddMode common }
    CRITICALITY     ignore
}

-- *** RadioLinkRestoration ***
radioLinkRestoration NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkRestoreIndication
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-radioLinkRestoration, ddMode common }
    CRITICALITY             ignore
}

-- *** DedicatedMeasurementReport ***
dedicatedMeasurementReport NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      DedicatedMeasurementReport
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-dedicatedMeasurementReport, ddMode common }
    CRITICALITY             ignore
}

-- *** DedicatedMeasurementTermination  ***
dedicatedMeasurementTermination NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      DedicatedMeasurementTerminationRequest
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-dedicatedMeasurementTermination, ddMode common }
    CRITICALITY             ignore
}

-- *** DedicatedMeasurementFailure ***
dedicatedMeasurementFailure NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      DedicatedMeasurementFailureIndication
    MESSAGE DISCRIMINATOR   dedicated
```

```
    PROCEDURE ID            { procedureCode id-dedicatedMeasurementFailure, ddMode common }
    CRITICALITY             ignore
}

-- *** DLPowerControl (FDD only) ***
downlinkPowerControlFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      DL-PowerControlRequest
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-downlinkPowerControl, ddMode fdd }
    CRITICALITY             ignore
}

-- *** DLPowerTimeslotControl (TDD only) ***
downlinkPowerTimeslotControl NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      DL-PowerTimeslotControlRequest
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-downlinkPowerTimeslotControl, ddMode tdd }
    CRITICALITY             ignore
}

-- *** CompressedModeCommand (FDD only) ***
compressedModeCommand NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CompressedModeCommand
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-compressedModeCommand, ddMode fdd }
    CRITICALITY             ignore
}

-- *** UnblockResourceIndication ***
unblockResource NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      UnblockResourceIndication
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-unblockResource, ddMode common }
    CRITICALITY             ignore
}

-- *** ErrorIndication for Dedicated procedures ***
errorIndicationForDedicated NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      ErrorIndication
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-errorIndicationForDedicated, ddMode common }
    CRITICALITY             ignore
}

-- *** ErrorIndication for Common procedures ***
errorIndicationForCommon NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      ErrorIndication
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-errorIndicationForCommon, ddMode common }
    CRITICALITY             ignore
}

-- *** CellSynchronisationReporting (TDD only) ***
cellSynchronisationReportingTDD NBAP-ELEMENTARY-PROCEDURE ::= {
```

```
    INITIATING MESSAGE      CellSynchronisationReportTDD
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-cellSynchronisationReporting, ddMode tdd }
    CRITICALITY             ignore
}

-- *** CellSynchronisationTermination (TDD only) ***
cellSynchronisationTerminationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CellSynchronisationTerminationRequestTDD
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-cellSynchronisationTermination, ddMode tdd }
    CRITICALITY             ignore
}

-- *** CellSynchronisationFailure (TDD only) ***
cellSynchronisationFailureTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CellSynchronisationFailureIndicationTDD
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-cellSynchronisationFailure, ddMode tdd }
    CRITICALITY             ignore
}

-- *** PrivateMessage for Dedicated procedures ***
privateMessageForDedicated NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      PrivateMessage
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-privateMessageForDedicated, ddMode common }
    CRITICALITY             ignore
}

-- *** PrivateMessage for Common procedures ***
privateMessageForCommon NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      PrivateMessage
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-privateMessageForCommon, ddMode common }
    CRITICALITY             ignore
}

-- *** InformationReporting ***
informationReporting NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationReport
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-informationReporting, ddMode common }
    CRITICALITY             ignore
}

-- *** InformationExchangeTermination ***
informationExchangeTermination NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationExchangeTerminationRequest
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-informationExchangeTermination, ddMode common }
    CRITICALITY             ignore
}
```

```
-- *** InformationExchangeFailure ***
informationExchangeFailure NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationExchangeFailureIndication
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-informationExchangeFailure, ddMode common }
    CRITICALITY             ignore
}

-- *** BearerRearrangement ***
bearerRearrangement NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      BearerRearrangementIndication
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-BearerRearrangement, ddMode common }
    CRITICALITY             ignore
}

-- *** RadioLinkActivation (FDD) ***
radioLinkActivationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkActivationCommandFDD
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-radioLinkActivation, ddMode fdd }
    CRITICALITY             ignore
}

-- *** RadioLinkActivation (TDD) ***
radioLinkActivationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkActivationCommandTDD
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-radioLinkActivation, ddMode tdd }
    CRITICALITY             ignore
}

-- *** RadioLinkParameterUpdate (FDD) ***
radioLinkParameterUpdateFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkParameterUpdateIndicationFDD
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-radioLinkParameterUpdate, ddMode fdd }
    CRITICALITY             ignore
}

-- *** RadioLinkParameterUpdate (TDD) ***
radioLinkParameterUpdateTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkParameterUpdateIndicationTDD
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-radioLinkParameterUpdate, ddMode tdd }
    CRITICALITY             ignore
}

-- *** MBMSNotificationUpdate ***
mBMSNotificationUpdate NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      MBMSNotificationUpdateCommand
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-mBMSNotificationUpdate, ddMode common }
    CRITICALITY             ignore
```

```
}


END
```

9.3.3 PDU Definitions

```
-- **************************************************************
--
-- PDU definitions for NBAP.
--
-- **************************************************************

NBAP-PDU-Contents {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-PDU-Contents (1) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- IE parameter types from other modules.
--
-- **************************************************************

IMPORTS
    Active-Pattern-Sequence-Information,
    AddorDeleteIndicator,
    AICH-Power,
    AICH-TransmissionTiming,
    AllocationRetentionPriority,
    AlternativeFormatReportingIndicator,
    AvailabilityStatus,
    BCCH-ModificationTime,
    BindingID,
    BlockingPriorityIndicator,
    BroadcastReference,
    SCTD-Indicator,
    Cause,
    CCTrCH-ID,
    CellParameterID,
    CellPortionID,
    CellSyncBurstCode,
    CellSyncBurstCodeShift,
    CellSyncBurstRepetitionPeriod,
    CellSyncBurstSIR,
    CellSyncBurstTiming,
    CellSyncBurstTimingThreshold,
    CFN,
    ChipOffset,
```

```
C-ID,
Closedlooptimingadjustmentmode,
CommonChannelsCapacityConsumptionLaw,
Compressed-Mode-Deactivation-Flag,
Common-MACFlows-to-DeleteFDD,
CommonMeasurementAccuracy,
CommonMeasurementType,
CommonMeasurementValue,
CommonMeasurementValueInformation,
CommonPhysicalChannelID,
CommonPhysicalChannelID768,
Common-PhysicalChannel-Status-Information,
Common-PhysicalChannel-Status-Information768,
Common-TransportChannel-Status-Information,
CommonTransportChannelID,
CommonTransportChannel-InformationResponse,
CommunicationControlPortID,
ConfigurationGenerationID,
ConstantValue,
ContinuousPacketConnectivityDTX-DRX-Capability,
ContinuousPacketConnectivityDTX-DRX-Information,
ContinuousPacketConnectivityHS-SCCH-less-Capability,
ContinuousPacketConnectivityHS-SCCH-less-Information,
ContinuousPacketConnectivityHS-SCCH-less-Information-Response,
CPC-Information,
CriticalityDiagnostics,
CRNC-CommunicationContextID,
CSBMeasurementID,
CSBTransmissionID,
DCH-FDD-Information,
DCH-Indicator-For-E-DCH-HSDPA-Operation,
DCH-InformationResponse,
DCH-ID,
FDD-DCHs-to-Modify,
TDD-DCHs-to-Modify,
DCH-TDD-Information,
DedicatedChannelsCapacityConsumptionLaw,
DedicatedMeasurementType,
DedicatedMeasurementValue,
DedicatedMeasurementValueInformation,
DelayedActivation,
DelayedActivationUpdate,
DiversityControlField,
DiversityMode,
DL-DPCH-SlotFormat,
DL-DPCH-TimingAdjustment,
DL-or-Global-CapacityCredit,
DL-Power,
DL-PowerBalancing-Information,
DL-PowerBalancing-ActivationIndicator,
DLPowerAveragingWindowSize,
DL-PowerBalancing-UpdatedIndicator,
DL-ScramblingCode,
DL-TimeslotISCP,
```

```
    DL-Timeslot-Information,
    DL-TimeslotLCR-Information,
    DL-TimeslotISCPInfo,
    DL-TimeslotISCPInfoLCR,
    DL-TPC-Pattern01Count,
    DPC-Mode,
    DPCH-ID,
    DPCH-ID768,
    DSCH-ID,
    DSCH-InformationResponse,
    DSCH-TDD-Information,
    DwPCH-Power,
    E-AGCH-FDD-Code-Information,
    E-DCH-Capability,
    E-DCHCapacityConsumptionLaw,
    E-DCH-TTI2ms-Capability,
    E-DCH-SF-Capability,
    E-DCH-HARQ-Combining-Capability,
    E-DCH-FDD-DL-Control-Channel-Information,
    E-DCH-FDD-Information,
    E-DCH-FDD-Information-Response,
    E-DCH-FDD-Information-to-Modify,
    E-DCH-FDD-Update-Information,
    E-DCH-MACdFlow-ID,
    E-DCH-MACdFlows-Information,
    E-DCH-MACdFlows-to-Delete,
    E-DCH-RL-Indication,
    E-DCH-Serving-Cell-Change-Info-Response,
    E-DPCCH-PO,
    E-RGCH-E-HICH-FDD-Code-Information,
    E-RGCH-2-IndexStepThreshold,
    E-RGCH-3-IndexStepThreshold,
    End-Of-Audit-Sequence-Indicator,
    Enhanced-FACH-Capability,
    Enhanced-PCH-Capability,
    E-TFCS-Information,
    E-TTI,
    ExtendedPropagationDelay,
    Fast-Reconfiguration-Mode,
    Fast-Reconfiguration-Permission,
    FDD-DL-ChannelisationCodeNumber,
    FDD-DL-CodeInformation,
    FDD-S-CCPCH-FrameOffset,
    FDD-S-CCPCH-Offset,
    FDD-TPC-DownlinkStepSize,
    F-DPCH-Capability,
    F-DPCH-SlotFormat,
    F-DPCH-SlotFormatCapability,
    FirstRLS-Indicator,
    FNReportingIndicator,
    FPACH-Power,
    FrameAdjustmentValue,
    FrameHandlingPriority,
    FrameOffset,
```

```
HARQ-Info-for-E-DCH,
HSDPA-Capability,
HSDSCH-Common-System-InformationFDD,
HSDSCH-Common-System-Information-ResponseFDD,
HSDSCH-Configured-Indicator,
HSDSCH-Paging-System-InformationFDD,
HSDSCH-Paging-System-Information-ResponseFDD,
HS-DSCH-Serving-Cell-Change-Info,
HS-DSCH-Serving-Cell-Change-Info-Response,
HSDSCH-MACdPDU-SizeCapability,
HS-PDSCH-FDD-Code-Information,
HS-SCCH-ID,
HS-SCCH-FDD-Code-Information,
HS-SICH-ID,
IB-OC-ID,
IB-SG-DATA,
IB-SG-POS,
IB-SG-REP,
IB-Type,
InformationExchangeID,
InformationReportCharacteristics,
InformationType,
Initial-DL-DPCH-TimingAdjustment-Allowed,
InnerLoopDLPCStatus,
IPDL-FDD-Parameters,
IPDL-TDD-Parameters,
IPDL-Indicator,
IPDL-TDD-Parameters-LCR,
IPMulticastIndication,
LimitedPowerIncrease,
Local-Cell-ID,
MaximumDL-PowerCapability,
Maximum-Target-ReceivedTotalWideBandPower,
MaximumTransmissionPower,
MaxNrOfUL-DPDCHs,
Max-Set-E-DPDCHs,
MaxPRACH-MidambleShifts,
Max-UE-DTX-Cycle,
MBMS-Capability,
MeasurementFilterCoefficient,
MeasurementID,
MeasurementRecoveryBehavior,
MeasurementRecoveryReportingIndicator,
MeasurementRecoverySupportIndicator,
MICH-CFN,
MICH-Mode,
MidambleAllocationMode,
MidambleShiftAndBurstType,
MidambleShiftAndBurstType768,
MidambleShiftLCR,
MinimumDL-PowerCapability,
MinSpreadingFactor,
MIMO-Capability,
MIMO-PilotConfiguration,
```

```
    MinUL-ChannelisationCodeLength,
    Modification-Period,
    MultiplexingPosition,
    NCyclesPerSFNperiod,
    NRepetitionsPerCyclePeriod,
    N-INSYNC-IND,
    N-OUTSYNC-IND,
    NeighbouringCellMeasurementInformation,
    NeighbouringFDDCellMeasurementInformation,
    NeighbouringTDDCellMeasurementInformation,
    NI-Information,
    NodeB-CommunicationContextID,
    NotificationIndicatorLength,
    NumberOfReportedCellPortions,
    NSubCyclesPerCyclePeriod,
    PagingIndicatorLength,
    Paging-MACFlows-to-DeleteFDD,
    PayloadCRC-PresenceIndicator,
    PCCPCH-Power,
    PDSCHSet-ID,
    PDSCH-ID,
    PDSCH-ID768,
    PICH-Mode,
    PICH-Power,
    PLCCHinformation,
    PowerAdjustmentType,
    PowerOffset,
    PowerRaiseLimit,
    PRACH-Midamble,
    PreambleSignatures,
    PreambleThreshold,
    PredictedSFNSFNDeviationLimit,
    PredictedTUTRANGPSDeviationLimit,
    PrimaryCPICH-Power,
    Primary-CPICH-Usage-for-Channel-Estimation,
    PrimaryScramblingCode,
    PropagationDelay,
    SCH-TimeSlot,
    PunctureLimit,
    PUSCHSet-ID,
    PUSCH-ID,
    QE-Selector,
    RACH-SlotFormat,
    RACH-SubChannelNumbers,
    Reference-ReceivedTotalWideBandPower,
    Reference-ReceivedTotalWideBandPowerReporting,
    Reference-ReceivedTotalWideBandPowerSupportIndicator,
    Maximum-Target-ReceivedTotalWideBandPower-LCR,
    ReferenceClockAvailability,
    ReferenceSFNoffset,
    RepetitionLength,
    RepetitionPeriod,
    ReportCharacteristics,
    RequestedDataValue,
```

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    RequestedDataValueInformation,
    ResourceOperationalState,
    RL-Set-ID,
    RL-ID,
    RL-Specific-DCH-Info,
    RL-Specific-E-DCH-Info,
    Received-total-wide-band-power-Value,
    AdjustmentPeriod,
    ScaledAdjustmentRatio,
    MaxAdjustmentStep,
    RNC-ID,
    ScramblingCodeNumber,
    Secondary-CPICH-Information-Change,
    SecondaryCCPCH-SlotFormat,
    Segment-Type,
    Serving-E-DCH-RL-ID,
    SixteenQAM-UL-Capability,
    SixtyfourQAM-DL-Capability,
    SFN,
    SFNSFNChangeLimit,
    SFNSFNDriftRate,
    SFNSFNDriftRateQuality,
    SFNSFNQuality,
    ShutdownTimer,
    SIB-Originator,
    SpecialBurstScheduling,
    SignallingBearerRequestIndicator,
    Start-Of-Audit-Sequence-Indicator,
    STTD-Indicator,
    SSDT-SupportIndicator,
    SyncCase,
    SYNCDlCodeId,
    SyncFrameNumber,
    SynchronisationReportCharacteristics,
    SynchronisationReportType,
    Target-NonServing-EDCH-To-Total-EDCH-Power-Ratio,
    T-Cell,
    T-RLFAILURE,
    TDD-ChannelisationCode,
    TDD-ChannelisationCodeLCR,
    TDD-ChannelisationCode768,
    TDD-DL-Code-LCR-Information,
    TDD-DPCHOffset,
    TDD-TPC-DownlinkStepSize,
    TDD-PhysicalChannelOffset,
    TDD-UL-Code-LCR-Information,
    TFCI-Coding,
    TFCI-Presence,
    TFCI-SignallingMode,
    TFCS,
    TimeSlot,
    TimeSlotLCR,
    TimeSlotDirection,
    TimeSlotStatus,
```

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    TimingAdjustmentValue,
    TimingAdvanceApplied,
    TnlQos,
    ToAWE,
    ToAWS,
    TransmissionDiversityApplied,
    TransmitDiversityIndicator,
    TransmissionGapPatternSequenceCodeInformation,
    Transmission-Gap-Pattern-Sequence-Information,
    TransportBearerRequestIndicator,
    TransportFormatSet,
    TransportLayerAddress,
    TSTD-Indicator,
    TUTRANGPS,
    TUTRANGPSChangeLimit,
    TUTRANGPSDriftRate,
    TUTRANGPSDriftRateQuality,
    TUTRANGPSQuality,
    UARFCN,
    UC-Id,
    USCH-Information,
    USCH-InformationResponse,
    UL-CapacityCredit,
    UL-DPCCH-SlotFormat,
    UL-DPDCH-Indicator-For-E-DCH-Operation,
    UL-SIR,
    UL-FP-Mode,
    UL-PhysCH-SF-Variation,
    UL-ScramblingCode,
    UL-Timeslot-Information,
    UL-TimeslotLCR-Information,
    UL-TimeSlot-ISCP-Info,
    UL-TimeSlot-ISCP-LCR-Info,
    UL-TimeslotISCP-Value,
    UL-TimeslotISCP-Value-IncrDecrThres,
    USCH-ID,
    HSDSCH-FDD-Information,
    HSDSCH-FDD-Information-Response,
    HSDSCH-Information-to-Modify,
    HSDSCH-Information-to-Modify-Unsynchronised,
    HSDSCH-MACdFlow-ID,
    HSDSCH-MACdFlows-Information,
    HSDSCH-MACdFlows-to-Delete,
    HSDSCH-RNTI,
    HSDSCH-TDD-Information,
    HSDSCH-TDD-Information-Response,
    PrimaryCCPCH-RSCP,
    HSDSCH-FDD-Update-Information,
    HSDSCH-TDD-Update-Information,
    UL-Synchronisation-Parameters-LCR,
    TDD-DL-DPCH-TimeSlotFormat-LCR,
    TDD-UL-DPCH-TimeSlotFormat-LCR,
    TDD-TPC-UplinkStepSize-LCR,
    CellSyncBurstTimingLCR,
```

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    TimingAdjustmentValueLCR,
    PrimaryCCPCH-RSCP-Delta,
    SynchronisationIndicator,
    TDD-UL-Code-768-Information,
    UL-Timeslot768-Information,
    TDD-DL-Code-768-Information,
    DL-Timeslot768-Information,
    E-DCH-TDD-CapacityConsumptionLaw,
    E-DCH-Information,
    E-DCH-Information-Response,
    E-DCH-Information-Reconfig,
    LTGI-Presence,
    SNPL-Reporting-Type,
    E-AGCH-Id,
    E-HICH-TimeOffset,
    Maximum-Generated-ReceivedTotalWideBandPowerInOtherCells,
    E-DCH-768-Information,
    E-DCH-768-Information-Reconfig,
    RTWP-ReportingIndicator,
    RTWP-CellPortion-ReportingIndicator,
    MAChs-ResetIndicator,
    E-DCH-LCR-Information,
    E-DCH-LCR-Information-Reconfig,
    E-HICH-ID-TDD,
    E-HICH-TimeOffsetLCR,
    E-HICH-Type,
    ModulationPO-MBSFN,
    Secondary-CCPCH-SlotFormat-Extended,
    ModulationMBSFN,
    MBSFN-Only-Mode-Indicator,
    MBSFN-Only-Mode-Capability,
    UPPCHPositionLCR,
    ControlGAP,
    Extended-HS-SICH-ID,
    Extended-HS-SCCH-ID,
    TimeslotLCR-Extension,
    Extended-E-HICH-ID-TDD



FROM NBAP-IEs

    PrivateIE-Container{},
    ProtocolExtensionContainer{},
    ProtocolIE-Container{},
    ProtocolIE-Single-Container{},
    ProtocolIE-ContainerList{},
    NBAP-PRIVATE-IES,
    NBAP-PROTOCOL-IES,
    NBAP-PROTOCOL-EXTENSION
FROM NBAP-Containers

    id-Active-Pattern-Sequence-Information,
    id-Additional-S-CCPCH-Parameters-CTCH-ReconfRqstTDD,
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    id-Additional-S-CCPCH-Parameters-CTCH-SetupRqstTDD,
    id-Additional-S-CCPCH-LCR-Parameters-CTCH-ReconfRqstTDD,
    id-Additional-S-CCPCH-LCR-Parameters-CTCH-SetupRqstTDD,
    id-AdjustmentRatio,
    id-AICH-Information,
    id-AICH-ParametersListIE-CTCH-ReconfRqstFDD,
    id-AlternativeFormatReportingIndicator,
    id-BCH-Information,
    id-BCCH-ModificationTime,
    id-bindingID,
    id-BlockingPriorityIndicator,
    id-BroadcastReference,
    id-Cause,
    id-CauseLevel-PSCH-ReconfFailure,
    id-CauseLevel-RL-AdditionFailureFDD,
    id-CauseLevel-RL-AdditionFailureTDD,
    id-CauseLevel-RL-ReconfFailure,
    id-CauseLevel-RL-SetupFailureFDD,
    id-CauseLevel-RL-SetupFailureTDD,
    id-CauseLevel-SyncAdjustmntFailureTDD,
    id-CCP-InformationItem-AuditRsp,
    id-CCP-InformationList-AuditRsp,
    id-CCP-InformationItem-ResourceStatusInd,
    id-CCTrCH-InformationItem-RL-FailureInd,
    id-CCTrCH-InformationItem-RL-RestoreInd,
    id-CCTrCH-Initial-DL-Power-RL-AdditionRqstTDD,
    id-CCTrCH-Initial-DL-Power-RL-ReconfPrepTDD,
    id-CCTrCH-Initial-DL-Power-RL-SetupRqstTDD,
    id-CellAdjustmentInfo-SyncAdjustmntRqstTDD,
    id-CellAdjustmentInfoItem-SyncAdjustmentRqstTDD,
    id-Cell-InformationItem-AuditRsp,
    id-Cell-InformationItem-ResourceStatusInd,
    id-Cell-InformationList-AuditRsp,
    id-CellParameterID,
    id-CellPortion-InformationItem-Cell-SetupRqstFDD,
    id-CellPortion-InformationList-Cell-SetupRqstFDD,
    id-CellPortion-InformationItem-Cell-ReconfRqstFDD,
    id-CellPortion-InformationList-Cell-ReconfRqstFDD,
    id-CellSyncBurstTransInit-CellSyncInitiationRqstTDD,
    id-CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD,
    id-cellSyncBurstRepetitionPeriod,
    id-CellSyncBurstTransReconfiguration-CellSyncReconfRqstTDD,
    id-CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD,
    id-CellSyncBurstMeasReconfiguration-CellSyncReconfRqstTDD,
    id-CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD,
    id-CellSyncBurstInfoList-CellSyncReconfRqstTDD,
    id-CellSyncInfo-CellSyncReprtTDD,
    id-CFN,
    id-CFNReportingIndicator,
    id-C-ID,
    id-Closed-Loop-Timing-Adjustment-Mode,
    id-Common-MACFlows-to-DeleteFDD,
    id-CommonMeasurementAccuracy,
    id-CommonMeasurementObjectType-CM-Rprt,
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    id-CommonMeasurementObjectType-CM-Rqst,
    id-CommonMeasurementObjectType-CM-Rsp,
    id-CommonMeasurementType,
    id-CommonPhysicalChannelID,
    id-CommonPhysicalChannelType-CTCH-ReconfRqstFDD,
    id-CommonPhysicalChannelType-CTCH-SetupRqstFDD,
    id-CommonPhysicalChannelType-CTCH-SetupRqstTDD,
    id-CommunicationContextInfoItem-Reset,
    id-CommunicationControlPortID,
    id-CommunicationControlPortInfoItem-Reset,
    id-Compressed-Mode-Deactivation-Flag,
    id-ConfigurationGenerationID,
    id-ContinuousPacketConnectivityDTX-DRX-Capability,
    id-ContinuousPacketConnectivityDTX-DRX-Information,
    id-ContinuousPacketConnectivityHS-SCCH-less-Capability,
    id-ContinuousPacketConnectivityHS-SCCH-less-Information,
    id-ContinuousPacketConnectivityHS-SCCH-less-Information-Response,
    id-CPC-Information,
    id-CRNC-CommunicationContextID,
    id-CriticalityDiagnostics,
    id-CSBTransmissionID,
    id-CSBMeasurementID,
    id-DCHs-to-Add-FDD,
    id-DCHs-to-Add-TDD,
    id-DCH-AddList-RL-ReconfPrepTDD,
    id-DCH-DeleteList-RL-ReconfPrepFDD,
    id-DCH-DeleteList-RL-ReconfPrepTDD,
    id-DCH-DeleteList-RL-ReconfRqstFDD,
    id-DCH-DeleteList-RL-ReconfRqstTDD,
    id-DCH-FDD-Information,
    id-DCH-TDD-Information,
    id-DCH-Indicator-For-E-DCH-HSDPA-Operation,
    id-DCH-InformationResponse,
    id-DCH-RearrangeList-Bearer-RearrangeInd,
    id-DSCH-RearrangeList-Bearer-RearrangeInd,
    id-FDD-DCHs-to-Modify,
    id-FDD-S-CCPCH-FrameOffset-CTCH-SetupRqstFDD,
    id-TDD-DCHs-to-Modify,
    id-DedicatedMeasurementObjectType-DM-Rprt,
    id-DedicatedMeasurementObjectType-DM-Rqst,
    id-DedicatedMeasurementObjectType-DM-Rsp,
    id-DedicatedMeasurementType,
    id-DelayedActivation,
    id-DelayedActivationList-RL-ActivationCmdFDD,
    id-DelayedActivationList-RL-ActivationCmdTDD,
    id-DelayedActivationInformation-RL-ActivationCmdFDD,
    id-DelayedActivationInformation-RL-ActivationCmdTDD,
    id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
    id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
    id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
    id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,
    id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD,
    id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD,
    id-DL-CCTrCH-InformationList-RL-SetupRqstTDD,
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id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD,
id-DL-DPCH-InformationItem-RL-AdditionRqstTDD,
id-DL-DPCH-InformationList-RL-SetupRqstTDD,
id-DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD,
id-DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD,
id-DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD,
id-DL-DPCH-Information-RL-ReconfPrepFDD,
id-DL-DPCH-Information-RL-ReconfRqstFDD,
id-DL-DPCH-Information-RL-SetupRqstFDD,
id-DL-DPCH-TimingAdjustment,
id-DL-DPCH-Power-Information-RL-ReconfPrepFDD,
id-DL-PowerBalancing-Information,
id-DL-PowerBalancing-ActivationIndicator,
id-DL-ReferencePowerInformationItem-DL-PC-Rqst,
id-DL-PowerBalancing-UpdatedIndicator,
id-DLReferencePower,
id-DLReferencePowerList-DL-PC-Rqst,
id-DL-TPC-Pattern01Count,
id-DPC-Mode,
id-DPCHConstant,
id-DSCHs-to-Add-TDD,
id-DSCH-Information-DeleteList-RL-ReconfPrepTDD,
id-DSCH-Information-ModifyList-RL-ReconfPrepTDD,
id-DSCH-InformationResponse,
id-DSCH-TDD-Information,
id-E-AGCH-And-E-RGCH-E-HICH-FDD-Scrambling-Code,
id-E-AGCH-FDD-Code-Information,
id-E-DCH-Capability,
id-E-DCH-TTI2ms-Capability,
id-E-DCH-SF-Capability,
id-E-DCH-HARQ-Combining-Capability,
id-E-DCH-FDD-DL-Control-Channel-Information,
id-E-DCH-FDD-Information,
id-E-DCH-FDD-Information-Response,
id-E-DCH-FDD-Information-to-Modify,
id-E-DCH-FDD-Update-Information,
id-E-DCH-MACdFlows-to-Add,
id-E-DCH-MACdFlows-to-Delete,
id-E-DCH-RearrangeList-Bearer-RearrangeInd,
id-E-DCH-Resources-Information-AuditRsp,
id-E-DCH-Resources-Information-ResourceStatusInd,
id-E-DCH-RL-Indication,
id-E-DCH-RL-Set-ID,
id-E-DCH-Serving-Cell-Change-Info-Response,
id-E-DCH-CapacityConsumptionLaw,
id-E-DPCH-Information-RL-ReconfPrepFDD,
id-E-DPCH-Information-RL-ReconfRqstFDD,
id-E-DPCH-Information-RL-SetupRqstFDD,
id-E-DPCH-Information-RL-AdditionReqFDD,
id-E-RGCH-E-HICH-FDD-Code-Information,
id-End-Of-Audit-Sequence-Indicator,
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    id-Enhanced-FACH-Capability,
    id-Enhanced-PCH-Capability,
    id-ExtendedPropagationDelay,
    id-FACH-Information,
    id-FACH-ParametersList-CTCH-ReconfRqstTDD,
    id-FACH-ParametersList-CTCH-SetupRsp,
    id-FACH-ParametersListIE-CTCH-ReconfRqstFDD,
    id-FACH-ParametersListIE-CTCH-SetupRqstFDD,
    id-FACH-ParametersListIE-CTCH-SetupRqstTDD,
    id-Fast-Reconfiguration-Mode,
    id-Fast-Reconfiguration-Permission,
    id-F-DPCH-Capability,
    id-F-DPCH-Information-RL-ReconfPrepFDD,
    id-F-DPCH-Information-RL-SetupRqstFDD,
    id-F-DPCH-SlotFormat,
    id-F-DPCH-SlotFormatCapability,
    id-HSDPA-And-EDCH-CellPortion-Information-PSCH-ReconfRqst,
    id-HSDSCH-Configured-Indicator,
    id-HS-DSCH-Serving-Cell-Change-Info,
    id-HS-DSCH-Serving-Cell-Change-Info-Response,
    id-IndicationType-ResourceStatusInd,
    id-InformationExchangeID,
    id-InformationExchangeObjectType-InfEx-Rqst,
    id-InformationExchangeObjectType-InfEx-Rsp,
    id-InformationExchangeObjectType-InfEx-Rprt,
    id-InformationReportCharacteristics,
    id-InformationType,
    id-InitDL-Power,
    id-Initial-DL-DPCH-TimingAdjustment,
    id-Initial-DL-DPCH-TimingAdjustment-Allowed,
    id-InnerLoopDLPCStatus,
    id-IntStdPhCellSyncInfoItem-CellSyncReprtTDD,
    id-IPDLParameter-Information-Cell-ReconfRqstFDD,
    id-IPDLParameter-Information-Cell-SetupRqstFDD,
    id-IPDLParameter-Information-Cell-ReconfRqstTDD,
    id-IPDLParameter-Information-Cell-SetupRqstTDD,
    id-IPMulticastIndication,
    id-LateEntranceCellSyncInfoItem-CellSyncReprtTDD,
    id-Limited-power-increase-information-Cell-SetupRqstFDD,
    id-Local-Cell-ID,
    id-Local-Cell-Group-InformationItem-AuditRsp,
    id-Local-Cell-Group-InformationItem-ResourceStatusInd,
    id-Local-Cell-Group-InformationItem2-ResourceStatusInd,
    id-Local-Cell-Group-InformationList-AuditRsp,
    id-Local-Cell-InformationItem-AuditRsp,
    id-Local-Cell-InformationItem-ResourceStatusInd,
    id-Local-Cell-InformationItem2-ResourceStatusInd,
    id-Local-Cell-InformationList-AuditRsp,
    id-AdjustmentPeriod,
    id-MaxAdjustmentStep,
    id-MaximumTransmissionPower,
    id-Max-UE-DTX-Cycle,
    id-MeasurementFilterCoefficient,
    id-MeasurementID,
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    id-MeasurementRecoveryBehavior,
    id-MeasurementRecoveryReportingIndicator,
    id-MeasurementRecoverySupportIndicator,
    id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst,
    id-MBMS-Capability,
    id-MICH-CFN,
    id-MICH-Information-AuditRsp,
    id-MICH-Information-ResourceStatusInd,
    id-MICH-Parameters-CTCH-ReconfRqstFDD,
    id-MICH-Parameters-CTCH-ReconfRqstTDD,
    id-MICH-Parameters-CTCH-SetupRqstFDD,
    id-MICH-Parameters-CTCH-SetupRqstTDD,
    id-MIMO-Capability,
    id-MIMO-PilotConfiguration,
    id-Modification-Period,
    id-multipleRL-dl-DPCH-InformationList,
    id-multipleRL-dl-DPCH-InformationModifyList,
    id-multipleRL-dl-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
    id-multiple-RL-Information-RL-ReconfPrepTDD,
    id-multiple-RL-Information-RL-ReconfRqstTDD,
    id-multipleRL-ul-DPCH-InformationList,
    id-multipleRL-ul-DPCH-InformationModifyList,
    id-NCyclesPerSFNperiod,
    id-NeighbouringCellMeasurementInformation,
    id-NI-Information-NotifUpdateCmd,
    id-NodeB-CommunicationContextID,
    id-NRepetitionsPerCyclePeriod,
    id-NumberOfReportedCellPortions,
    id-Paging-MACFlows-to-DeleteFDD,
    id-P-CCPCH-Information,
    id-P-CPICH-Information,
    id-P-SCH-Information,
    id-PCCPCH-Information-Cell-ReconfRqstTDD,
    id-PCCPCH-Information-Cell-SetupRqstTDD,
    id-PCH-Parameters-CTCH-ReconfRqstTDD,
    id-PCH-Parameters-CTCH-SetupRsp,
    id-PCH-ParametersItem-CTCH-ReconfRqstFDD,
    id-PCH-ParametersItem-CTCH-SetupRqstFDD,
    id-PCH-ParametersItem-CTCH-SetupRqstTDD,
    id-PCH-Information,
    id-PICH-ParametersItem-CTCH-ReconfRqstFDD,
    id-PDSCH-Information-AddListIE-PSCH-ReconfRqst,
    id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst,
    id-PDSCH-RL-ID,
    id-PDSCH-Timeslot-Format-PSCH-ReconfRqst-LCR,
    id-PDSCHSets-AddList-PSCH-ReconfRqst,
    id-PDSCHSets-DeleteList-PSCH-ReconfRqst,
    id-PDSCHSets-ModifyList-PSCH-ReconfRqst,
    id-PICH-Information,
    id-PICH-Parameters-CTCH-ReconfRqstTDD,
    id-PICH-ParametersItem-CTCH-SetupRqstTDD,
    id-PLCCH-Information-AuditRsp,
    id-PLCCH-Information-ResourceStatusInd,
    id-PLCCH-Information-RL-ReconfPrepTDDLCR,
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    id-PLCCH-InformationList-AuditRsp,
    id-PLCCH-InformationList-ResourceStatusInd,
    id-PLCCH-Parameters-CTCH-ReconfRqstTDD,
    id-PowerAdjustmentType,
    id-Power-Local-Cell-Group-choice-CM-Rqst,
    id-Power-Local-Cell-Group-choice-CM-Rsp,
    id-Power-Local-Cell-Group-choice-CM-Rprt,
    id-Power-Local-Cell-Group-InformationItem-AuditRsp,
    id-Power-Local-Cell-Group-InformationItem-ResourceStatusInd,
    id-Power-Local-Cell-Group-InformationItem2-ResourceStatusInd,
    id-Power-Local-Cell-Group-InformationList-AuditRsp,
    id-Power-Local-Cell-Group-InformationList-ResourceStatusInd,
    id-Power-Local-Cell-Group-InformationList2-ResourceStatusInd,
    id-Power-Local-Cell-Group-ID,
    id-PRACH-Information,
    id-PRACHConstant,
    id-PRACH-ParametersItem-CTCH-SetupRqstTDD,
    id-PRACH-ParametersListIE-CTCH-ReconfRqstFDD,
    id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD,
    id-PrimaryCCPCH-Information-Cell-SetupRqstFDD,
    id-PrimaryCPICH-Information-Cell-ReconfRqstFDD,
    id-PrimaryCPICH-Information-Cell-SetupRqstFDD,
    id-Primary-CPICH-Usage-for-Channel-Estimation,
    id-PrimarySCH-Information-Cell-ReconfRqstFDD,
    id-PrimarySCH-Information-Cell-SetupRqstFDD,
    id-PrimaryScramblingCode,
    id-SCH-Information-Cell-ReconfRqstTDD,
    id-SCH-Information-Cell-SetupRqstTDD,
    id-PUSCH-Information-AddListIE-PSCH-ReconfRqst,
    id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst,
    id-PUSCH-Timeslot-Format-PSCH-ReconfRqst-LCR,
    id-PUSCHConstant,
    id-PUSCHSets-AddList-PSCH-ReconfRqst,
    id-PUSCHSets-DeleteList-PSCH-ReconfRqst,
    id-PUSCHSets-ModifyList-PSCH-ReconfRqst,
    id-RACH-Information,
    id-RACH-Parameters-CTCH-SetupRsp,
    id-RACH-ParametersItem-CTCH-SetupRqstFDD,
    id-RACH-ParameterItem-CTCH-SetupRqstTDD,
    id-ReferenceClockAvailability,
    id-ReferenceSFNoffset,
    id-ReportCharacteristics,
    id-Reporting-Object-RL-FailureInd,
    id-Reporting-Object-RL-RestoreInd,
    id-ResetIndicator,
    id-RL-ID,
    id-RL-InformationItem-DM-Rprt,
    id-RL-InformationItem-DM-Rqst,
    id-RL-InformationItem-DM-Rsp,
    id-RL-InformationItem-RL-AdditionRqstFDD,
    id-RL-informationItem-RL-DeletionRqst,
    id-RL-InformationItem-RL-FailureInd,
    id-RL-InformationItem-RL-PreemptRequiredInd,
    id-RL-InformationItem-RL-ReconfPrepFDD,
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    id-RL-InformationItem-RL-ReconfRqstFDD,
    id-RL-InformationItem-RL-RestoreInd,
    id-RL-InformationItem-RL-SetupRqstFDD,
    id-RL-InformationList-RL-AdditionRqstFDD,
    id-RL-informationList-RL-DeletionRqst,
    id-RL-InformationList-RL-PreemptRequiredInd,
    id-RL-InformationList-RL-ReconfPrepFDD,
    id-RL-InformationList-RL-ReconfRqstFDD,
    id-RL-InformationList-RL-SetupRqstFDD,
    id-RL-InformationResponseItem-RL-AdditionRspFDD,
    id-RL-InformationResponseItem-RL-ReconfReady,
    id-RL-InformationResponseItem-RL-ReconfRsp,
    id-RL-InformationResponseItem-RL-SetupRspFDD,
    id-RL-InformationResponseList-RL-AdditionRspFDD,
    id-RL-InformationResponseList-RL-ReconfReady,
    id-RL-InformationResponseList-RL-ReconfRsp,
    id-RL-InformationResponseList-RL-SetupRspFDD,
    id-RL-InformationResponse-RL-AdditionRspTDD,
    id-RL-InformationResponse-RL-SetupRspTDD,
    id-RL-Information-RL-AdditionRqstTDD,
    id-RL-Information-RL-ReconfRqstTDD,
    id-RL-Information-RL-ReconfPrepTDD,
    id-RL-Information-RL-SetupRqstTDD,
    id-RL-ReconfigurationFailureItem-RL-ReconfFailure,
    id-RL-Set-InformationItem-DM-Rprt,
    id-RL-Set-InformationItem-DM-Rsp,
    id-RL-Set-InformationItem-RL-FailureInd,
    id-RL-Set-InformationItem-RL-RestoreInd,
    id-RL-Specific-DCH-Info,
    id-RL-Specific-E-DCH-Info,
    id-S-CCPCH-Information,
    id-S-CCPCH-InformationListExt-AuditRsp,
    id-S-CCPCH-InformationListExt-ResourceStatusInd,
    id-S-CCPCH-LCR-InformationListExt-AuditRsp,
    id-S-CCPCH-LCR-InformationListExt-ResourceStatusInd,
    id-S-CPICH-Information,
    id-SCH-Information,
    id-S-SCH-Information,
    id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD,
    id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD,
    id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD,
    id-Secondary-CPICH-Information,
    id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD,
    id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD,
    id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD,
    id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD,
    id-Secondary-CPICH-Information-Change,
    id-SecondarySCH-Information-Cell-ReconfRqstFDD,
    id-SecondarySCH-Information-Cell-SetupRqstFDD,
    id-SegmentInformationListIE-SystemInfoUpdate,
    id-Serving-Cell-Change-CFN,
    id-Serving-E-DCH-RL-ID,
    id-SixteenQAM-UL-Capability,
    id-SixtyfourQAM-DL-Capability,
```

```
    id-SFN,
    id-SFNReportingIndicator,
    id-ShutdownTimer,
    id-SignallingBearerRequestIndicator,
    id-Start-Of-Audit-Sequence-Indicator,
    id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD,
    id-Successful-RL-InformationRespItem-RL-SetupFailureFDD,
    id-Synchronisation-Configuration-Cell-ReconfRqst,
    id-Synchronisation-Configuration-Cell-SetupRqst,
    id-SyncCase,
    id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH,
    id-SyncFrameNumber,
    id-SynchronisationReportType,
    id-SynchronisationReportCharacteristics,
    id-SyncReportType-CellSyncReprtTDD,
    id-T-Cell,
    id-TargetCommunicationControlPortID,
    id-Transmission-Gap-Pattern-Sequence-Information,
    id-TimeSlotConfigurationList-Cell-ReconfRqstTDD,
    id-TimeSlotConfigurationList-Cell-SetupRqstTDD,
    id-timeslotInfo-CellSyncInitiationRqstTDD,
    id-TimeslotISCPInfo,
    id-TimingAdvanceApplied,
    id-TnlQos,
    id-TransmissionDiversityApplied,
    id-transportlayeraddress,
    id-Tstd-indicator,
    id-UARFCNforNt,
    id-UARFCNforNd,
    id-UARFCNforNu,
    id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD,
    id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD,
    id-UL-CCTrCH-InformationList-RL-SetupRqstTDD,
    id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
    id-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD,
    id-UL-DPCH-InformationItem-RL-AdditionRqstTDD,
    id-UL-DPCH-InformationList-RL-SetupRqstTDD,
    id-UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD,
    id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD,
    id-UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD,
    id-UL-DPCH-Information-RL-ReconfPrepFDD,
    id-UL-DPCH-Information-RL-ReconfRqstFDD,
    id-UL-DPCH-Information-RL-SetupRqstFDD,
    id-UL-DPDCH-Indicator-For-E-DCH-Operation,
    id-Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD,
    id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD,
    id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD,
    id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD,
```

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    id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD,
    id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD,
    id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD,
    id-USCH-Information-Add,
    id-USCH-Information-DeleteList-RL-ReconfPrepTDD,
    id-USCH-Information-ModifyList-RL-ReconfPrepTDD,
    id-USCH-InformationResponse,
    id-USCH-Information,
    id-USCH-RearrangeList-Bearer-RearrangeInd,
    id-DL-DPCH-LCR-Information-RL-SetupRqstTDD,
    id-DwPCH-LCR-Information    ,
    id-DwPCH-LCR-InformationList-AuditRsp,
    id-DwPCH-LCR-Information-Cell-SetupRqstTDD,
    id-DwPCH-LCR-Information-Cell-ReconfRqstTDD,
    id-DwPCH-LCR-Information-ResourceStatusInd,
    id-maxFACH-Power-LCR-CTCH-SetupRqstTDD,
    id-maxFACH-Power-LCR-CTCH-ReconfRqstTDD,
    id-FPACH-LCR-Information,
    id-FPACH-LCR-Information-AuditRsp,
    id-FPACH-LCR-InformationList-AuditRsp,
    id-FPACH-LCR-InformationList-ResourceStatusInd,
    id-FPACH-LCR-Parameters-CTCH-SetupRqstTDD,
    id-FPACH-LCR-Parameters-CTCH-ReconfRqstTDD,
    id-PCCPCH-LCR-Information-Cell-SetupRqstTDD,
    id-PCH-Power-LCR-CTCH-SetupRqstTDD,
    id-PCH-Power-LCR-CTCH-ReconfRqstTDD,
    id-PICH-LCR-Parameters-CTCH-SetupRqstTDD,
    id-PRACH-LCR-ParametersList-CTCH-SetupRqstTDD,
    id-RL-InformationResponse-LCR-RL-SetupRspTDD    ,
    id-Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD,
    id-TimeSlot,
    id-TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD,
    id-TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD,
    id-TimeslotISCP-LCR-InfoList-RL-SetupRqstTDD,
    id-TimeSlotLCR-CM-Rqst,
    id-UL-DPCH-LCR-Information-RL-SetupRqstTDD,
    id-DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD,
    id-UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD,
    id-TimeslotISCP-InformationList-LCR-RL-AdditionRqstTDD,
    id-DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD,
    id-DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD,
    id-DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD,
    id-TimeslotISCPInfoList-LCR-DL-PC-RqstTDD,
    id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfPrepTDD,
    id-UL-DPCH-LCR-InformationModify-AddList,
    id-UL-TimeslotLCR-Information-RL-ReconfPrepTDD,
    id-UL-SIRTarget,
    id-PDSCH-AddInformation-LCR-PSCH-ReconfRqst,
    id-PDSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst,
    id-PDSCH-ModifyInformation-LCR-PSCH-ReconfRqst,
    id-PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst,
    id-PUSCH-AddInformation-LCR-PSCH-ReconfRqst,
    id-PUSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst,
    id-PUSCH-ModifyInformation-LCR-PSCH-ReconfRqst,
```

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    id-PUSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst,
    id-PUSCH-Info-DM-Rqst,
    id-PUSCH-Info-DM-Rsp,
    id-PUSCH-Info-DM-Rprt,
    id-RL-InformationResponse-LCR-RL-AdditionRspTDD,
    id-IPDLParameter-Information-LCR-Cell-SetupRqstTDD,
    id-IPDLParameter-Information-LCR-Cell-ReconfRqstTDD,
    id-HS-PDSCH-HS-SCCH-E-AGCH-E-RGCH-E-HICH-MaxPower-PSCH-ReconfRqst,
    id-HS-PDSCH-HS-SCCH-ScramblingCode-PSCH-ReconfRqst,
    id-HS-PDSCH-FDD-Code-Information-PSCH-ReconfRqst,
    id-HS-SCCH-FDD-Code-Information-PSCH-ReconfRqst,
    id-HS-PDSCH-TDD-Information-PSCH-ReconfRqst,
    id-Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst,
    id-Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst,
    id-Delete-From-HS-SCCH-Resource-Pool-PSCH-ReconfRqst,
    id-SYNCDlCodeId-TransInitLCR-CellSyncInitiationRqstTDD,
    id-SYNCDlCodeId-MeasureInitLCR-CellSyncInitiationRqstTDD,
    id-SYNCDlCodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD,
    id-SYNCDlCodeIdMeasReconfigurationLCR-CellSyncReconfRqstTDD,
    id-SYNCDlCodeIdMeasInfoList-CellSyncReconfRqstTDD,
    id-SyncDLCodeIdsMeasInfoList-CellSyncReprtTDD,
    id-NSubCyclesPerCyclePeriod-CellSyncReconfRqstTDD,
    id-DwPCH-Power,
    id-AccumulatedClockupdate-CellSyncReprtTDD,
    id-HSDPA-Capability,
    id-HSDSCH-FDD-Information,
    id-HSDSCH-Common-System-InformationFDD,
    id-HSDSCH-Common-System-Information-ResponseFDD,
    id-HSDSCH-FDD-Information-Response,
    id-HSDSCH-Information-to-Modify,
    id-HSDSCH-Information-to-Modify-Unsynchronised,
    id-HSDSCH-MACdFlows-to-Add,
    id-HSDSCH-MACdFlows-to-Delete,
    id-HSDSCH-Paging-System-InformationFDD,
    id-HSDSCH-Paging-System-Information-ResponseFDD,
    id-HSDSCH-RearrangeList-Bearer-RearrangeInd,
    id-HSDSCH-Resources-Information-AuditRsp,
    id-HSDSCH-Resources-Information-ResourceStatusInd,
    id-HSDSCH-RNTI,
    id-HSDSCH-TDD-Information,
    id-HSDSCH-TDD-Information-Response,
    id-HSPDSCH-RL-ID,
    id-HSSICH-Info-DM-Rprt,
    id-HSSICH-Info-DM-Rqst,
    id-HSSICH-Info-DM-Rsp,
    id-PrimCCPCH-RSCP-DL-PC-RqstTDD,
    id-HSDSCH-FDD-Update-Information,
    id-HSDSCH-TDD-Update-Information,
    id-UL-Synchronisation-Parameters-LCR,
    id-DL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD,
    id-UL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD,
    id-CCTrCH-Maximum-DL-Power-RL-SetupRqstTDD,
    id-CCTrCH-Minimum-DL-Power-RL-SetupRqstTDD,
    id-CCTrCH-Maximum-DL-Power-RL-AdditionRqstTDD,
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    id-CCTrCH-Minimum-DL-Power-RL-AdditionRqstTDD,
    id-CCTrCH-Maximum-DL-Power-InformationAdd-RL-ReconfPrepTDD,
    id-CCTrCH-Minimum-DL-Power-InformationAdd-RL-ReconfPrepTDD,
    id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfPrepTDD,
    id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfPrepTDD,
    id-Maximum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD,
    id-Minimum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD,
    id-DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD,
    id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfRqstTDD,
    id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfRqstTDD,
    id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD,
    id-TDD-TPC-UplinkStepSize-LCR-RL-AdditionRqstTDD,
    id-TDD-TPC-DownlinkStepSize-RL-AdditionRqstTDD,
    id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD,
    id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD,
    id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD,
    id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD,
    id-TimeslotISCP-LCR-InfoList-RL-ReconfPrepTDD,
    id-TimingAdjustmentValueLCR,
    id-PrimaryCCPCH-RSCP-Delta,
    id-Maximum-Target-ReceivedTotalWideBandPower,
    id-multiple-DedicatedMeasurementValueList-TDD-DM-Rsp,
    id-multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp,
    id-SynchronisationIndicator,
    id-Reference-ReceivedTotalWideBandPower,
    id-Reference-ReceivedTotalWideBandPowerReporting,
    id-Reference-ReceivedTotalWideBandPowerSupportIndicator,
    id-Maximum-Target-ReceivedTotalWideBandPower-LCR,
    id-multiple-PUSCH-InfoList-DM-Rsp,
    id-multiple-PUSCH-InfoList-DM-Rprt,
    id-Target-NonServing-EDCH-To-Total-EDCH-Power-Ratio,
    id-multiple-HSSICHMeasurementValueList-TDD-DM-Rsp,
    id-PCCPCH-768-Information-Cell-SetupRqstTDD,
    id-SCH-768-Information-Cell-SetupRqstTDD,
    id-SCH-768-Information-Cell-ReconfRqstTDD,
    id-PCCPCH-768-Information-Cell-ReconfRqstTDD,
    id-P-CCPCH-768-Information-AuditRsp,
    id-PICH-768-Information-AuditRsp,
    id-PRACH-768-InformationList-AuditRsp,
    id-SCH-768-Information-AuditRsp,
    id-MICH-768-Information-AuditRsp,
    id-CommonPhysicalChannelID768-CommonTrChDeletionReq,
    id-MICH-768-Parameters-CTCH-ReconfRqstTDD,
    id-PICH-768-Parameters-CTCH-SetupRqstTDD,
    id-PICH-768-Parameters-CTCH-ReconfRqstTDD,
    id-PRACH-768-Parameters-CTCH-SetupRqstTDD,
    id-S-CCPCH-768-InformationList-AuditRsp,
    id-S-CCPCH-768-Information-AuditRsp,
    id-S-CCPCH-768-Parameters-CTCH-SetupRqstTDD,
    id-S-CCPCH-768-Parameters-CTCH-ReconfRqstTDD,
    id-S-CCPCH-768-Information-ResourceStatusInd,
    id-P-CCPCH-768-Information-ResourceStatusInd,
    id-PICH-768-Information-ResourceStatusInd,
    id-PRACH-768-InformationList-ResourceStatusInd,
```

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    id-SCH-768-Information-ResourceStatusInd,
    id-MICH-768-Information-ResourceStatusInd,
    id-S-CCPCH-768-InformationList-ResourceStatusInd,
    id-PRACH-768-Information,
    id-UL-DPCH-768-Information-RL-SetupRqstTDD,
    id-DL-DPCH-768-Information-RL-SetupRqstTDD,
    id-DL-DPCH-InformationItem-768-RL-AdditionRqstTDD,
    id-UL-DPCH-InformationItem-768-RL-AdditionRqstTDD,
    id-UL-DPCH-768-InformationAddItemIE-RL-ReconfPrepTDD,
    id-UL-DPCH-768-InformationAddListIE-RL-ReconfPrepTDD,
    id-UL-DPCH-768-InformationModify-AddItem,
    id-UL-DPCH-768-InformationModify-AddList,
    id-UL-Timeslot768-Information-RL-ReconfPrepTDD,
    id-DL-DPCH-768-InformationAddItem-RL-ReconfPrepTDD,
    id-DL-DPCH-768-InformationAddList-RL-ReconfPrepTDD,
    id-DL-DPCH-768-InformationModify-AddItem-RL-ReconfPrepTDD,
    id-DL-DPCH-768-InformationModify-AddList-RL-ReconfPrepTDD,
    id-DL-Timeslot-768-InformationModify-ModifyList-RL-ReconfPrepTDD,
    id-DPCH-ID768-DM-Rqst,
    id-multiple-DedicatedMeasurementValueList-768-TDD-DM-Rsp,
    id-DPCH-ID768-DM-Rsp,
    id-DPCH-ID768-DM-Rprt,
    id-PDSCH-AddInformation-768-PSCH-ReconfRqst,
    id-PDSCH-ModifyInformation-768-PSCH-ReconfRqst,
    id-PUSCH-AddInformation-768-PSCH-ReconfRqst,
    id-PUSCH-ModifyInformation-768-PSCH-ReconfRqst,
    id-dL-HS-PDSCH-Timeslot-Information-768-PSCH-ReconfRqst,
    id-hS-SCCH-Information-768-PSCH-ReconfRqst,
    id-hS-SCCH-InformationModify-768-PSCH-ReconfRqst,
    id-tFCI-Presence,
    id-E-RUCCH-InformationList-AuditRsp,
    id-E-RUCCH-InformationList-ResourceStatusInd,
    id-E-RUCCH-Information,
    id-E-DCH-Information,
    id-E-DCH-Information-Response,
    id-E-DCH-Information-Reconfig,
    id-E-PUCH-Information-PSCH-ReconfRqst,
    id-Add-To-E-AGCH-Resource-Pool-PSCH-ReconfRqst,
    id-Modify-E-AGCH-Resource-Pool-PSCH-ReconfRqst,
    id-Delete-From-E-AGCH-Resource-Pool-PSCH-ReconfRqst,
    id-E-HICH-Information-PSCH-ReconfRqst,
    id-E-DCH-TDD-CapacityConsumptionLaw,
    id-E-HICH-TimeOffset,
    id-Maximum-Generated-ReceivedTotalWideBandPowerInOtherCells,
    id-E-DCH-Serving-RL-ID,
    id-E-RUCCH-768-InformationList-AuditRsp,
    id-E-RUCCH-768-InformationList-ResourceStatusInd,
    id-E-RUCCH-768-Information,
    id-E-DCH-768-Information,
    id-E-DCH-768-Information-Reconfig,
    id-E-PUCH-Information-768-PSCH-ReconfRqst,
    id-Add-To-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst,
    id-Modify-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst,
    id-E-HICH-Information-768-PSCH-ReconfRqst,
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id-RTWP-ReportingIndicator,
id-RTWP-CellPortion-ReportingIndicator,
id-Received-Scheduled-EDCH-Power-Share-Value,
id-Received-Scheduled-EDCH-Power-Share-For-CellPortion-Value,
id-Received-Scheduled-EDCH-Power-Share,
id-Received-Scheduled-EDCH-Power-Share-For-CellPortion,
id-ueCapability-Info,
id-MAChs-ResetIndicator,
id-SYNC-UL-Partition-LCR,
id-E-DCH-LCR-Information,
id-E-DCH-LCR-Information-Reconfig,
id-E-PUCH-Information-LCR-PSCH-ReconfRqst,
id-Add-To-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst,
id-Modify-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst,
id-Add-To-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst,
id-Modify-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst,
id-Delete-From-E-HICH-Resource-Pool-PSCH-ReconfRqst,
id-E-HICH-TimeOffsetLCR,
id-HSDSCH-MACdPDU-SizeCapability,
id-ModulationPO-MBSFN,
id-Secondary-CCPCH-SlotFormat-Extended,
id-MBSFN-Only-Mode-Indicator-Cell-SetupRqstTDD-LCR,
id-Time-Slot-Parameter-ID,
id-MBSFN-Only-Mode-Capability,
id-MBSFN-Cell-ParameterID-Cell-SetupRqstTDD,
id-MBSFN-Cell-ParameterID-Cell-ReconfRqstTDD,
id-S-CCPCH-Modulation,
id-TimeSlotConfigurationList-LCR-CTCH-SetupRqstTDD,
id-Cell-Frequency-List-Information-LCR-MulFreq-AuditRsp,
id-Cell-Frequency-List-InformationItem-LCR-MulFreq-AuditRsp,
id-Cell-Frequency-List-LCR-MulFreq-Cell-SetupRqstTDD,
id-UARFCN-Adjustment,
id-Cell-Frequency-List-Information-LCR-MulFreq-ResourceStatusInd,
id-Cell-Frequency-List-InformationItem-LCR-MulFreq-ResourceStatusInd,
id-UPPCHPositionLCR,
id-UPPCH-LCR-Parameters-CTCH-ReconfRqstTDD,
id-UPPCH-LCR-InformationList-AuditRsp,
id-UPPCH-LCR-InformationItem-AuditRsp,
id-UPPCH-LCR-InformationList-ResourceStatusInd,
id-UPPCH-LCR-InformationItem-ResourceStatusInd,
id-multipleFreq-dL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst,
id-multipleFreq-HS-DSCH-Resources-InformationList-AuditRsp,
id-multipleFreq-HS-DSCH-Resources-InformationList-ResourceStatusInd,
id-UARFCNSpecificCauseList,id-Unsuccessful-UARFCNItem-PSCH-ReconfFailureTDD,
id-MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst,
id-Extended-HS-SCCH-ID,
id-Extended-HS-SICH-ID,
id-HSSICH-InfoExt-DM-Rqst,
id-Delete-From-HS-SCCH-Resource-PoolExt-PSCH-ReconfRqst,
id-HS-SCCH-InformationExt-LCR-PSCH-ReconfRqst,
id-HS-SCCH-InformationModifyExt-LCR-PSCH-ReconfRqst,
id-PowerControlGAP,
id-MBSFN-SpecialTimeSlot-LCR,
id-MultipleFreq-E-DCH-Resources-InformationList-AuditRsp,
```

```
    id-MultipleFreq-E-DCH-Resources-InformationList-ResourceStatusInd,
    id-MultipleFreq-E-PUCH-Timeslot-InformationList-LCR-PSCH-ReconfRqst,
    id-MultipleFreq-E-PUCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst,
    id-Extended-E-HICH-ID-TDD,



    maxNrOfCCTrCHs,
    maxNrOfCellSyncBursts,
    maxNrOfCodes,
    maxNrOfDCHs,
    maxNrOfDLTSs,
    maxNrOfDLTSLCRs,
    maxNrOfDPCHs,
    maxNrOfDPCHsPerRL-1,
    maxNrOfDPCHLCRs,
    maxNrOfDPCHsLCRPerRL-1,
    maxNrOfDPCHs768,
    maxNrOfDPCHs768PerRL-1,
    maxNrOfDSCHs,
    maxNrOfFACHs,
    maxNrOfRLs,
    maxNrOfRLs-1,
    maxNrOfRLs-2,
    maxNrOfRLSets,
    maxNrOfPDSCHs,
    maxNrOfPUSCHs,
    maxNrOfPUSCHs-1,
    maxNrOfPRACHLCRs,
    maxNrOfPDSCHSets,
    maxNrOfPUSCHSets,
    maxNrOfReceptsPerSyncFrame,
    maxNrOfSCCPCHs,
    maxNrOfSCCPCHsinExt,
    maxNrOfSCCPCHLCRs,
    maxNrOfSCCPCHsLCRinExt,
    maxNrOfSCCPCHs768,
    maxNrOfULTSs,
    maxNrOfULTSLCRs,
    maxNrOfUSCHs,
    maxFACHCell,
    maxFPACHCell,
    maxRACHCell,
    maxPLCCHCell,
    maxPRACHCell,
    maxSCCPCHCell,
    maxSCCPCHCell768,
    maxSCCPCHCellinExt,
    maxSCCPCHCellinExtLCR,
    maxSCPICHCell,
    maxCellinNodeB,
    maxCCPinNodeB,
    maxCommunicationContext,
    maxLocalCellinNodeB,
```

```
    maxNrOfSlotFormatsPRACH,
    maxIB,
    maxIBSEG,
    maxNrOfCellPortionsPerCell,
    maxNrOfHSSCCHs,
    maxNrOfHSSICHs,
    maxNrOfHSSICHs-1,
    maxNrOfHSPDSCHs,
    maxNrOfHSPDSCHs768,
    maxNrOfSyncFramesLCR,
    maxNrOfReceptionsperSyncFrameLCR,
    maxNrOfSyncDLCodesLCR,
    maxNrOfMACdFlows,
    maxNrOfEDCHMACdFlows,
    maxE-RUCCHCell,
    maxNrOfE-PUCHSlots,
    maxNrOfEAGCHs,
    maxNrOfEAGCHCodes,
    maxNrOfE-PUCHSlotsLCR,
    maxNrOfEPUCHcodes,
    maxNrOfEHICHs,
    maxFrequencyinCell,
    maxFrequencyinCell-1,
    maxNrOfHSSCCHsinExt


FROM NBAP-Constants;

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL SETUP REQUEST FDD
--
-- **************************************************************

CommonTransportChannelSetupRequestFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CommonTransportChannelSetupRequestFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonTransportChannelSetupRequestFDD-Extensions}}     OPTIONAL,
    ...
}

CommonTransportChannelSetupRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonTransportChannelSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                                     CRITICALITY reject      TYPE    C-ID                        PRESENCE mandatory   }|
    { ID    id-ConfigurationGenerationID                CRITICALITY reject      TYPE    ConfigurationGenerationID   PRESENCE mandatory   }|
    { ID    id-CommonPhysicalChannelType-CTCH-SetupRqstFDD      CRITICALITY ignore      TYPE    CommonPhysicalChannelType-CTCH-SetupRqstFDD
    PRESENCE    mandatory   },
    ...
}

CommonPhysicalChannelType-CTCH-SetupRqstFDD ::= CHOICE {
    secondary-CCPCH-parameters      Secondary-CCPCH-CTCH-SetupRqstFDD,
    pRACH-parameters                PRACH-CTCH-SetupRqstFDD,
```

```
    notUsed-pCPCHes-parameters      NULL,
    ...
}

Secondary-CCPCH-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    fdd-S-CCPCH-Offset                      FDD-S-CCPCH-Offset,
    dl-ScramblingCode                       DL-ScramblingCode                           OPTIONAL,
    -- This IE shall be present if the PCH Parameters IE is not present
    fdd-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    tFCS                                    TFCS,
    secondary-CCPCH-SlotFormat              SecondaryCCPCH-SlotFormat,
    tFCI-Presence                           TFCI-Presence                               OPTIONAL,
    -- This IE shall be present if the Secondary CCPCH Slot Format is set to any of the values from 8 to 17
    multiplexingPosition                    MultiplexingPosition,
    powerOffsetInformation                  PowerOffsetInformation-CTCH-SetupRqstFDD,
    sTTD-Indicator                          STTD-Indicator,
    fACH-Parameters                         FACH-ParametersList-CTCH-SetupRqstFDD       OPTIONAL,
    pCH-Parameters                          PCH-Parameters-CTCH-SetupRqstFDD            OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer  { { Secondary-CCPCHItem-CTCH-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

Secondary-CCPCHItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MICH-Parameters-CTCH-SetupRqstFDD           CRITICALITY reject  EXTENSION MICH-Parameters-CTCH-SetupRqstFDD     PRESENCE optional }|
    { ID id-FDD-S-CCPCH-FrameOffset-CTCH-SetupRqstFDD   CRITICALITY reject  EXTENSION FDD-S-CCPCH-FrameOffset               PRESENCE optional }|
    { ID id-ModulationPO-MBSFN                          CRITICALITY reject  EXTENSION ModulationPO-MBSFN                     PRESENCE optional }|
    { ID id-Secondary-CCPCH-SlotFormat-Extended         CRITICALITY reject  EXTENSION Secondary-CCPCH-SlotFormat-Extended   PRESENCE optional },
    ...
}

PowerOffsetInformation-CTCH-SetupRqstFDD ::= SEQUENCE {
    pO1-ForTFCI-Bits                        PowerOffset,
    pO3-ForPilotBits                        PowerOffset,
    iE-Extensions                           ProtocolExtensionContainer { { PowerOffsetInformation-CTCH-SetupRqstFDD-ExtIEs} }  OPTIONAL,
    ...
}

PowerOffsetInformation-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-ParametersList-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container {{ FACH-ParametersListIEs-CTCH-SetupRqstFDD }}

FACH-ParametersListIEs-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-ParametersListIE-CTCH-SetupRqstFDD   CRITICALITY reject    TYPE FACH-ParametersListIE-CTCH-SetupRqstFDD  PRESENCE mandatory }
}

FACH-ParametersListIE-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-SetupRqstFDD

FACH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID            CommonTransportChannelID,
    transportFormatSet                  TransportFormatSet,
    toAWS                               ToAWS,
```

```
    toAWE                           ToAWE,
    maxFACH-Power                   DL-Power,
    iE-Extensions                   ProtocolExtensionContainer  { { FACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

FACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-bindingID                    CRITICALITY ignore      EXTENSION   BindingID                       PRESENCE optional }|
    { ID    id-transportlayeraddress        CRITICALITY ignore      EXTENSION   TransportLayerAddress           PRESENCE optional }|
    { ID    id-TnlQos                       CRITICALITY ignore      EXTENSION   TnlQos                          PRESENCE optional }|
    { ID    id-BroadcastReference           CRITICALITY ignore      EXTENSION   BroadcastReference              PRESENCE optional }|
    { ID    id-IPMulticastIndication        CRITICALITY ignore      EXTENSION   IPMulticastIndication           PRESENCE optional },
    ...
}

PCH-Parameters-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container {{ PCH-ParametersIE-CTCH-SetupRqstFDD }}

PCH-ParametersIE-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-PCH-ParametersItem-CTCH-SetupRqstFDD   CRITICALITY reject   TYPE PCH-ParametersItem-CTCH-SetupRqstFDD   PRESENCE mandatory }
}

PCH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID        CommonTransportChannelID,
    transportFormatSet              TransportFormatSet,
    toAWS                           ToAWS,
    toAWE                           ToAWE,
    pCH-Power                       DL-Power,
    pICH-Parameters                 PICH-Parameters-CTCH-SetupRqstFDD,
    iE-Extensions                   ProtocolExtensionContainer  { { PCH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

PCH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-bindingID                    CRITICALITY ignore      EXTENSION   BindingID                       PRESENCE optional }|
    { ID    id-transportlayeraddress        CRITICALITY ignore      EXTENSION   TransportLayerAddress           PRESENCE optional }|
    { ID    id-TnlQos                       CRITICALITY ignore      EXTENSION   TnlQos                          PRESENCE optional },
    ...
}

PICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID         CommonPhysicalChannelID,
    fdd-dl-ChannelisationCodeNumber FDD-DL-ChannelisationCodeNumber,
    pICH-Power                      PICH-Power,
    pICH-Mode                       PICH-Mode,
    sTTD-Indicator                  STTD-Indicator,
    iE-Extensions                   ProtocolExtensionContainer { { PICH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

PICH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
```

```
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    fdd-dl-ChannelisationCodeNumber             FDD-DL-ChannelisationCodeNumber,
    mICH-Power                                  PICH-Power,
    mICH-Mode                                   MICH-Mode,
    sTTD-Indicator                              STTD-Indicator,
    iE-Extensions                               ProtocolExtensionContainer { { MICH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

MICH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PRACH-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    scramblingCodeNumber                        ScramblingCodeNumber,
    tFCS                                        TFCS,
    preambleSignatures                          PreambleSignatures,
    allowedSlotFormatInformation                AllowedSlotFormatInformationList-CTCH-SetupRqstFDD,
    rACH-SubChannelNumbers                      RACH-SubChannelNumbers,
    ul-punctureLimit                            PunctureLimit,
    preambleThreshold                           PreambleThreshold,
    rACH-Parameters                             RACH-Parameters-CTCH-SetupRqstFDD,
    aICH-Parameters                             AICH-Parameters-CTCH-SetupRqstFDD,
    iE-Extensions                               ProtocolExtensionContainer { { PRACHItem-CTCH-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

PRACHItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AllowedSlotFormatInformationList-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1.. maxNrOfSlotFormatsPRACH)) OF AllowedSlotFormatInformationItem-CTCH-
SetupRqstFDD

AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    rACHSlotFormat                              RACH-SlotFormat,
    iE-Extensions                               ProtocolExtensionContainer  { { AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD-ExtIEs} }
    OPTIONAL,
    ...
}

AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RACH-Parameters-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container {{ RACH-ParametersIE-CTCH-SetupRqstFDD }}

RACH-ParametersIE-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-RACH-ParametersItem-CTCH-SetupRqstFDD   CRITICALITY reject  TYPE RACH-ParametersItem-CTCH-SetupRqstFDD  PRESENCE mandatory }
}

RACH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID                    CommonTransportChannelID,
```

```
    transportFormatSet                          TransportFormatSet,
    iE-Extensions                               ProtocolExtensionContainer  { { RACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
 }

RACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-bindingID                        CRITICALITY ignore      EXTENSION   BindingID                       PRESENCE optional }|
    { ID    id-transportlayeraddress            CRITICALITY ignore      EXTENSION   TransportLayerAddress           PRESENCE optional }|
    { ID    id-TnlQos                           CRITICALITY ignore      EXTENSION   TnlQos                           PRESENCE optional },
    ...
}

AICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    aICH-TransmissionTiming                     AICH-TransmissionTiming,
    fdd-dl-ChannelisationCodeNumber             FDD-DL-ChannelisationCodeNumber,
    aICH-Power                                  AICH-Power,
    sTTD-Indicator                              STTD-Indicator,
    iE-Extensions                               ProtocolExtensionContainer  { { AICH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

AICH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL SETUP REQUEST TDD
--
-- **************************************************************

CommonTransportChannelSetupRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CommonTransportChannelSetupRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonTransportChannelSetupRequestTDD-Extensions}}          OPTIONAL,
    ...
}

CommonTransportChannelSetupRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                                     CRITICALITY reject  TYPE C-ID                                   PRESENCE mandatory   }|
    { ID    id-ConfigurationGenerationID                CRITICALITY reject  TYPE ConfigurationGenerationID           PRESENCE mandatory   }|
    { ID    id-CommonPhysicalChannelType-CTCH-SetupRqstTDD  CRITICALITY ignore  TYPE CommonPhysicalChannelType-CTCH-SetupRqstTDD     PRESENCE
    mandatory   },
    ...
}

CommonTransportChannelSetupRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonPhysicalChannelType-CTCH-SetupRqstTDD ::= CHOICE {
    secondary-CCPCH-parameters                  Secondary-CCPCH-CTCH-SetupRqstTDD,
    pRACH-parameters                            PRACH-CTCH-SetupRqstTDD,
    pLCCH-parameters                            PLCCH-parameters,
```

```
    eRUCCH-parameters                           E-RUCCH-parameters,
    eRUCCH-768-parameters                       E-RUCCH-768-parameters,
    ...
}

Secondary-CCPCH-CTCH-SetupRqstTDD ::= SEQUENCE {
    sCCPCH-CCTrCH-ID                            CCTrCH-ID,  -- For DL CCTrCH supporting one or several Secondary CCPCHs
    tFCS                                        TFCS,       -- For DL CCTrCH supporting one or several Secondary CCPCHs
    tFCI-Coding                                 TFCI-Coding,
    punctureLimit                               PunctureLimit,
    secondaryCCPCH-parameterList                Secondary-CCPCH-parameterList-CTCH-SetupRqstTDD,
    fACH-ParametersList                         FACH-ParametersList-CTCH-SetupRqstTDD       OPTIONAL,
    pCH-Parameters                              PCH-Parameters-CTCH-SetupRqstTDD            OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer  {{Secondary-CCPCHItem-CTCH-SetupRqstTDD-ExtIEs}}   OPTIONAL,
    ...
}

Secondary-CCPCHItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Tstd-indicator                                  CRITICALITY reject  EXTENSION TSTD-Indicator                PRESENCE optional }|
    { ID id-MICH-Parameters-CTCH-SetupRqstTDD               CRITICALITY reject  EXTENSION MICH-Parameters-CTCH-SetupRqstTDD   PRESENCE optional
    }|
    { ID id-Additional-S-CCPCH-Parameters-CTCH-SetupRqstTDD     CRITICALITY reject  EXTENSION Secondary-CCPCH-parameterExtendedList-CTCH-
SetupRqstTDD        PRESENCE optional   }|
    -- Applicable to 3.84Mcps TDD only, used when more than maxNrOfSCCPCHs SCCPCHs are to be established.
    { ID id-Additional-S-CCPCH-LCR-Parameters-CTCH-SetupRqstTDD CRITICALITY reject  EXTENSION Secondary-CCPCH-LCR-parameterExtendedList-CTCH-
SetupRqstTDD        PRESENCE optional   }|
    -- Applicable to 1.28Mcps TDD only, used when more than maxNrOfSCCPCHLCRs SCCPCHs are to be established.
    { ID id-S-CCPCH-768-Parameters-CTCH-SetupRqstTDD         CRITICALITY reject  EXTENSION Secondary-CCPCH-768-parameterList-CTCH-SetupRqstTDD
       PRESENCE optional   }|
    { ID id-S-CCPCH-Modulation                              CRITICALITY reject  EXTENSION ModulationMBSFN                    PRESENCE optional
    }|  -- Applicable to 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-TimeSlotConfigurationList-LCR-CTCH-SetupRqstTDD     CRITICALITY reject  EXTENSION TimeSlotConfigurationList-LCR-CTCH-SetupRqstTDD
    PRESENCE optional }|
    { ID id-UARFCNforNt     CRITICALITY reject  EXTENSION UARFCN        PRESENCE optional },
    -- Applicable to 1.28Mcps TDD when using multiple frequencies. This IE indicates the frequency of Secondary Frequency on which SCCPCH to be set
up
    ...
}

Secondary-CCPCH-parameterList-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ Secondary-CCPCH-parameterListIEs-CTCH-SetupRqstTDD }}

Secondary-CCPCH-parameterListIEs-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD   CRITICALITY reject  TYPE Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD
    PRESENCE optional }|
    { ID id-Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD CRITICALITY reject  TYPE Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD
    PRESENCE optional }
}

Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHs)) OF Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD

Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    tdd-ChannelisationCode                      TDD-ChannelisationCode,
    timeslot                                    TimeSlot,
```

```
    midambleShiftandBurstType                   MidambleShiftAndBurstType,
    tdd-PhysicalChannelOffset                   TDD-PhysicalChannelOffset,
    repetitionPeriod                            RepetitionPeriod,
    repetitionLength                            RepetitionLength,
    s-CCPCH-Power                               DL-Power,
    iE-Extensions                               ProtocolExtensionContainer { { Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-tFCI-Presence                       CRITICALITY notify  EXTENSION TFCI-Presence     PRESENCE optional},
    ...
}

Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHLCRs)) OF Secondary-CCPCH-LCR-parameterItem-CTCH-
SetupRqstTDD

Secondary-CCPCH-LCR-parameterItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    tdd-ChannelisationCodeLCR                   TDD-ChannelisationCodeLCR,
    timeslotLCR                                 TimeSlotLCR,
    midambleShiftLCR                            MidambleShiftLCR,
    -- For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, NodeB shall ignore the contents of this IE.
    tdd-PhysicalChannelOffset                   TDD-PhysicalChannelOffset,
    repetitionPeriod                            RepetitionPeriod,
    repetitionLength                            RepetitionLength,
    s-CCPCH-Power                               DL-Power,
    s-CCPCH-TimeSlotFormat-LCR                  TDD-DL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions                               ProtocolExtensionContainer { { Secondary-CCPCH-LCR-parameterItem-CTCH-SetupRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

Secondary-CCPCH-LCR-parameterItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-MBSFN-SpecialTimeSlot-LCR            CRITICALITY ignore      EXTENSION   TimeslotLCR-Extension           PRESENCE optional },
    -- Only for 1.28 Mcps TDD MBSFN only mode, this IE indicates the MBSFN Special Time Slot [19]. The IE 'Time Slot LCR' shall be ignored if this
IE appears
    ...
}

Secondary-CCPCH-768-parameterList-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHs768)) OF Secondary-CCPCH-768-parameterItem-CTCH-
SetupRqstTDD

Secondary-CCPCH-768-parameterItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID768                  CommonPhysicalChannelID768,
    tdd-ChannelisationCode768                   TDD-ChannelisationCode768,
    timeslot                                    TimeSlot,
    tFCI-Presence768                            TFCI-Presence       OPTIONAL,
    midambleShiftandBurstType768                MidambleShiftAndBurstType768,
    tdd-PhysicalChannelOffset                   TDD-PhysicalChannelOffset,
    repetitionPeriod                            RepetitionPeriod,
    repetitionLength                            RepetitionLength,
    s-CCPCH-Power                               DL-Power,
```

```
    iE-Extensions                               ProtocolExtensionContainer { { Secondary-CCPCH-parameterItem-768-CTCH-SetupRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

Secondary-CCPCH-parameterItem-768-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-ParametersList-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ FACH-ParametersListIEs-CTCH-SetupRqstTDD }}

FACH-ParametersListIEs-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-ParametersListIE-CTCH-SetupRqstTDD   CRITICALITY reject    TYPE FACH-ParametersListIE-CTCH-SetupRqstTDD  PRESENCE mandatory }
}

FACH-ParametersListIE-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-SetupRqstTDD

FACH-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonTransportChannelID                CommonTransportChannelID,
    fACH-CCTrCH-ID                          CCTrCH-ID,
    dl-TransportFormatSet                   TransportFormatSet,
    toAWS                                   ToAWS,
    toAWE                                   ToAWE,
    iE-Extensions                           ProtocolExtensionContainer  { { FACH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

FACH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-maxFACH-Power-LCR-CTCH-SetupRqstTDD  CRITICALITY reject  EXTENSION DL-Power                         PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID    id-bindingID                            CRITICALITY ignore  EXTENSION BindingID                       PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID    id-transportlayeraddress                CRITICALITY ignore  EXTENSION TransportLayerAddress           PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID    id-TnlQos                               CRITICALITY ignore  EXTENSION   TnlQos                        PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID    id-BroadcastReference                   CRITICALITY ignore  EXTENSION   BroadcastReference            PRESENCE optional }|
    { ID    id-IPMulticastIndication                CRITICALITY ignore  EXTENSION   IPMulticastIndication         PRESENCE optional },
    ...
}

PCH-Parameters-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ PCH-ParametersIE-CTCH-SetupRqstTDD }}

PCH-ParametersIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-PCH-ParametersItem-CTCH-SetupRqstTDD   CRITICALITY reject   TYPE PCH-ParametersItem-CTCH-SetupRqstTDD   PRESENCE mandatory }
}

PCH-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonTransportChannelID                CommonTransportChannelID,
    pCH-CCTrCH-ID                           CCTrCH-ID,
    dl-TransportFormatSet                   TransportFormatSet, -- For the DL.
    toAWS                                   ToAWS,
    toAWE                                   ToAWE,
    pICH-Parameters                         PICH-Parameters-CTCH-SetupRqstTDD,
```

```
    iE-Extensions                           ProtocolExtensionContainer  { { PCH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

PCH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-PCH-Power-LCR-CTCH-SetupRqstTDD          CRITICALITY reject  EXTENSION DL-Power                                  PRESENCE optional
    }|
    { ID    id-bindingID                                CRITICALITY ignore  EXTENSION BindingID                                  PRESENCE optional
    }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID    id-transportlayeraddress                    CRITICALITY ignore  EXTENSION TransportLayerAddress                      PRESENCE optional
    }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-PICH-768-Parameters-CTCH-SetupRqstTDD       CRITICALITY reject  EXTENSION PICH-768-ParametersItem-CTCH-SetupRqstTDD   PRESENCE optional
    }|
    { ID id-TnlQos                                      CRITICALITY ignore  EXTENSION TnlQos                                     PRESENCE optional
    },
    -- Shall be ignored if bearer establishment with ALCAP.
    ...
}

PICH-Parameters-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ PICH-ParametersIE-CTCH-SetupRqstTDD }}

PICH-ParametersIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-PICH-ParametersItem-CTCH-SetupRqstTDD   CRITICALITY reject  TYPE PICH-ParametersItem-CTCH-SetupRqstTDD  PRESENCE optional }|
    { ID id-PICH-LCR-Parameters-CTCH-SetupRqstTDD   CRITICALITY reject  TYPE PICH-LCR-Parameters-CTCH-SetupRqstTDD  PRESENCE optional }
}

PICH-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    timeSlot                                TimeSlot,
    midambleshiftAndBurstType               MidambleShiftAndBurstType,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    pagingIndicatorLength                   PagingIndicatorLength,
    pICH-Power                              PICH-Power,
    iE-Extensions                           ProtocolExtensionContainer  { { PICH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

PICH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PICH-LCR-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    tdd-ChannelisationCodeLCR               TDD-ChannelisationCodeLCR,
    timeSlotLCR                             TimeSlotLCR,
    midambleShiftLCR                        MidambleShiftLCR,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
```

```
    pagingIndicatorLength                   PagingIndicatorLength,
    pICH-Power                              PICH-Power,
    second-TDD-ChannelisationCodeLCR        TDD-ChannelisationCodeLCR,
    iE-Extensions                           ProtocolExtensionContainer  { { PICH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

PICH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-Tstd-indicator           CRITICALITY reject      EXTENSION   TSTD-Indicator      PRESENCE            optional },
    -- Applicable to 1.28 Mcps TDD only
    ...
}

PICH-768-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID768              CommonPhysicalChannelID768,
    tdd-ChannelisationCode768               TDD-ChannelisationCode768,
    timeSlot                                TimeSlot,
    midambleshiftAndBurstType78             MidambleShiftAndBurstType768,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    pagingIndicatorLength                   PagingIndicatorLength,
    pICH-Power                              PICH-Power,
    iE-Extensions                           ProtocolExtensionContainer  { { PICH-768-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

PICH-768-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


MICH-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    notificationIndicatorLength             NotificationIndicatorLength,
    mICH-Power                              PICH-Power,
    mICH-TDDOption-Specific-Parameters      MICH-TDDOption-Specific-Parameters-CTCH-SetupRqstTDD,
    iE-Extensions                           ProtocolExtensionContainer  { { MICH-Parameters-CTCH-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

MICH-Parameters-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MICH-TDDOption-Specific-Parameters-CTCH-SetupRqstTDD ::= CHOICE {
    hCR-TDD                                 MICH-HCR-Parameters-CTCH-SetupRqstTDD,
    lCR-TDD                                 MICH-LCR-Parameters-CTCH-SetupRqstTDD,
    ...,
    cHipRate768-TDD                         MICH-768-Parameters-CTCH-SetupRqstTDD
}
```

```
MICH-HCR-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    timeSlot                                TimeSlot,
    midambleshiftAndBurstType               MidambleShiftAndBurstType,
    iE-Extensions                           ProtocolExtensionContainer { { MICH-HCR-Parameters-CTCH-SetupRqstTDD-ExtIEs } }    OPTIONAL,
    ...
}

MICH-HCR-Parameters-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MICH-LCR-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
    tdd-ChannelisationCodeLCR               TDD-ChannelisationCodeLCR,
    timeSlotLCR                             TimeSlotLCR,
    midambleShiftLCR                        MidambleShiftLCR,
    -- For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, NodeB shall ignore the contents of this IE.
    second-TDD-ChannelisationCodeLCR        TDD-ChannelisationCodeLCR,
    tSTD-Indicator                          TSTD-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { MICH-LCR-Parameters-CTCH-SetupRqstTDD-ExtIEs } }    OPTIONAL,
    ...
}

MICH-LCR-Parameters-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-MBSFN-SpecialTimeSlot-LCR            CRITICALITY ignore      EXTENSION TimeslotLCR-Extension             PRESENCE optional },
    -- Only for 1.28 Mcps TDD MBSFN only mode, this IE indicates the MBSFN Special Time Slot [19]. The IE 'Time Slot LCR' shall be ignored if this
IE appears
    ...
}

MICH-768-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
    tdd-ChannelisationCode768               TDD-ChannelisationCode768,
    timeSlot                                TimeSlot,
    midambleshiftAndBurstType768            MidambleShiftAndBurstType768,
    iE-Extensions                           ProtocolExtensionContainer { { MICH-768-Parameters-CTCH-SetupRqstTDD-ExtIEs } }    OPTIONAL,
    ...
}

MICH-768-Parameters-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TimeSlotConfigurationList-LCR-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..7)) OF TimeSlotConfigurationItem-LCR-CTCH-SetupRqstTDD

TimeSlotConfigurationItem-LCR-CTCH-SetupRqstTDD ::= SEQUENCE {
    timeslotLCR                             TimeSlotLCR,
    timeslotLCR-Parameter-ID                CellParameterID,
    iE-Extensions                           ProtocolExtensionContainer { { TimeSlotConfigurationItem-LCR-CTCH-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

TimeSlotConfigurationItem-LCR-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

Secondary-CCPCH-parameterExtendedList-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHsinExt)) OF Secondary-CCPCH-parameterItem-CTCH-
SetupRqstTDD
    -- Applicable to 3.84Mcps TDD only, used when more than maxNrOfSCCPCHs SCCPCHs are to be established.

Secondary-CCPCH-LCR-parameterExtendedList-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHsLCRinExt)) OF Secondary-CCPCH-LCR-parameterItem-
CTCH-SetupRqstTDD
    -- Applicable to 1.28Mcps TDD only, used when more than maxNrOfSCCPCHLCRs SCCPCHs are to be established.

PRACH-CTCH-SetupRqstTDD ::= SEQUENCE {
    pRACH-Parameters-CTCH-SetupRqstTDD          PRACH-Parameters-CTCH-SetupRqstTDD,
    iE-Extensions                               ProtocolExtensionContainer  { { PRACH-CTCH-SetupRqstTDD-ExtIEs } }    OPTIONAL,
    ...
}

PRACH-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-FPACH-LCR-Parameters-CTCH-SetupRqstTDD  CRITICALITY reject  EXTENSION FPACH-LCR-Parameters-CTCH-SetupRqstTDD  PRESENCE optional }|
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-PRACH-768-Parameters-CTCH-SetupRqstTDD  CRITICALITY reject  EXTENSION PRACH-768-ParametersItem-CTCH-SetupRqstTDD PRESENCE optional },
    ...
}

PRACH-Parameters-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ PRACH-ParametersIE-CTCH-SetupRqstTDD }}

PRACH-ParametersIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-PRACH-ParametersItem-CTCH-SetupRqstTDD      CRITICALITY reject  TYPE PRACH-ParametersItem-CTCH-SetupRqstTDD     PRESENCE optional }|
    { ID id-PRACH-LCR-ParametersList-CTCH-SetupRqstTDD  CRITICALITY reject  TYPE PRACH-LCR-ParametersList-CTCH-SetupRqstTDD  PRESENCE optional }
}


PRACH-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    tFCS                                        TFCS,
    timeslot                                    TimeSlot,
    tdd-ChannelisationCode                      TDD-ChannelisationCode,
    maxPRACH-MidambleShifts                     MaxPRACH-MidambleShifts,
    pRACH-Midamble                              PRACH-Midamble,
    rACH                                        RACH-Parameter-CTCH-SetupRqstTDD,
    iE-Extensions                               ProtocolExtensionContainer  { { PRACH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

PRACH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RACH-Parameter-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ RACH-ParameterIE-CTCH-SetupRqstTDD }}

RACH-ParameterIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-RACH-ParameterItem-CTCH-SetupRqstTDD   CRITICALITY reject   TYPE RACH-ParameterItem-CTCH-SetupRqstTDD   PRESENCE mandatory }
}

RACH-ParameterItem-CTCH-SetupRqstTDD ::= SEQUENCE {
```

```
    commonTransportChannelID                    CommonTransportChannelID,
    uL-TransportFormatSet                       TransportFormatSet, -- For the UL
    iE-Extensions                               ProtocolExtensionContainer  { { RACH-ParameterItem-CTCH-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

RACH-ParameterItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-bindingID                   CRITICALITY ignore  EXTENSION BindingID                 PRESENCE optional }|
        -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-transportlayeraddress       CRITICALITY ignore  EXTENSION TransportLayerAddress     PRESENCE optional }|
        -- Shall be ignored if bearer establishment with ALCAP.
    { ID    id-TnlQos                   CRITICALITY ignore  EXTENSION TnlQos                    PRESENCE optional },
    -- Shall be ignored if bearer establishment with ALCAP.
    ...
}

PRACH-LCR-ParametersList-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfPRACHLCRs)) OF PRACH-LCR-ParametersItem-CTCH-SetupRqstTDD

PRACH-LCR-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    tFCS                                        TFCS,
    timeslotLCR                                 TimeSlotLCR,
    tdd-ChannelisationCodeLCR                   TDD-ChannelisationCodeLCR,
    midambleShiftLCR                            MidambleShiftLCR,
    rACH                                        RACH-Parameter-CTCH-SetupRqstTDD,
    iE-Extensions                               ProtocolExtensionContainer  { { PRACH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

PRACH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
     { ID id-UARFCNforNt    CRITICALITY reject      EXTENSION UARFCN        PRESENCE optional },
    -- Applicable to 1.28Mcps TDD when using multiple frequencies. This IE indicates the frequency of secondary on which PRACH to be set up.
    ...
}

PRACH-768-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID768                  CommonPhysicalChannelID768,
    tFCS                                        TFCS,
    timeslot                                    TimeSlot,
    tdd-ChannelisationCode768                   TDD-ChannelisationCode768,
    maxPRACH-MidambleShifts                     MaxPRACH-MidambleShifts,
    pRACH-Midamble                              PRACH-Midamble,
    rACH                                        RACH-Parameter-CTCH-SetupRqstTDD,
    iE-Extensions                               ProtocolExtensionContainer  { { PRACH-768-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

PRACH-768-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FPACH-LCR-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    tdd-ChannelisationCodeLCR                   TDD-ChannelisationCodeLCR,
```

```
    timeslotLCR                                 TimeSlotLCR,
    midambleShiftLCR                            MidambleShiftLCR,
    fPACH-Power                                 FPACH-Power,
    iE-Extensions                               ProtocolExtensionContainer  { { FPACH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

FPACH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UARFCNforNt     CRITICALITY reject      EXTENSION UARFCN        PRESENCE optional },
    --  Applicable to 1.28Mcps TDD when using multiple frequencies. This IE indicates the frequency of Secondary Frequency on which FPACH to be set
up.
    ...
}

PLCCH-parameters  ::= SEQUENCE {
    maxPowerPLCCH                               DL-Power,
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    tdd-ChannelisationCode                      TDD-ChannelisationCode,
    timeslotLCR                                 TimeSlotLCR,
    midambleShiftLCR                            MidambleShiftLCR,
    iE-Extensions                               ProtocolExtensionContainer  { { PLCCH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

PLCCH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-RUCCH-parameters  ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    timeslot                                    TimeSlot,
    tdd-ChannelisationCode                      TDD-ChannelisationCode,
    maxE-RUCCH-MidambleShifts                   MaxPRACH-MidambleShifts,
    e-RUCCH-Midamble                            PRACH-Midamble,
    iE-Extensions                               ProtocolExtensionContainer  { { E-RUCCH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

E-RUCCH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-RUCCH-768-parameters  ::= SEQUENCE {
    commonPhysicalChannelID768                  CommonPhysicalChannelID768,
    timeslot                                    TimeSlot,
    tdd-ChannelisationCode768                   TDD-ChannelisationCode768,
    maxE-RUCCH-MidambleShifts                   MaxPRACH-MidambleShifts,
    e-RUCCH-Midamble                            PRACH-Midamble,
    iE-Extensions                               ProtocolExtensionContainer  { { E-RUCCH-768-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

E-RUCCH-768-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL SETUP RESPONSE
--
-- **************************************************************

CommonTransportChannelSetupResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CommonTransportChannelSetupResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonTransportChannelSetupResponse-Extensions}}    OPTIONAL,
    ...
}

CommonTransportChannelSetupResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-ParametersList-CTCH-SetupRsp   CRITICALITY ignore  TYPE FACH-CommonTransportChannel-InformationResponse    PRESENCE optional }|
    { ID id-PCH-Parameters-CTCH-SetupRsp        CRITICALITY ignore  TYPE CommonTransportChannel-InformationResponse         PRESENCE optional }|
    { ID id-RACH-Parameters-CTCH-SetupRsp       CRITICALITY ignore  TYPE CommonTransportChannel-InformationResponse         PRESENCE optional }|
    { ID id-CriticalityDiagnostics              CRITICALITY ignore  TYPE CriticalityDiagnostics                             PRESENCE optional },
    ...
}

CommonTransportChannelSetupResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-CommonTransportChannel-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfFACHs)) OF CommonTransportChannel-InformationResponse

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL SETUP FAILURE
--
-- **************************************************************

CommonTransportChannelSetupFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CommonTransportChannelSetupFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonTransportChannelSetupFailure-Extensions}}     OPTIONAL,
    ...
}

CommonTransportChannelSetupFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-Cause                    CRITICALITY ignore      TYPE    Cause                                   PRESENCE mandatory   }|
    { ID    id-CriticalityDiagnostics   CRITICALITY ignore      TYPE    CriticalityDiagnostics                  PRESENCE optional    },
    ...
}

CommonTransportChannelSetupFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST FDD
```

```
--
-- **********************************************************

CommonTransportChannelReconfigurationRequestFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CommonTransportChannelReconfigurationRequestFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonTransportChannelReconfigurationRequestFDD-Extensions}}   OPTIONAL,
    ...
}

CommonTransportChannelReconfigurationRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                                        CRITICALITY reject  TYPE C-ID                                       PRESENCE mandatory
}|
    { ID id-ConfigurationGenerationID                   CRITICALITY reject  TYPE ConfigurationGenerationID                  PRESENCE mandatory
}|
    { ID id-CommonPhysicalChannelType-CTCH-ReconfRqstFDD    CRITICALITY reject  TYPE CommonPhysicalChannelType-CTCH-ReconfRqstFDD PRESENCE
mandatory },
    ...
}

CommonTransportChannelReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonPhysicalChannelType-CTCH-ReconfRqstFDD ::= CHOICE {
    secondary-CCPCH-parameters      Secondary-CCPCHList-CTCH-ReconfRqstFDD,
    pRACH-parameters                PRACHList-CTCH-ReconfRqstFDD,
    notUsed-cPCH-parameters         NULL,
    ...
}

Secondary-CCPCHList-CTCH-ReconfRqstFDD ::= SEQUENCE {
    fACH-ParametersList-CTCH-ReconfRqstFDD      FACH-ParametersList-CTCH-ReconfRqstFDD  OPTIONAL,
    pCH-Parameters-CTCH-ReconfRqstFDD           PCH-Parameters-CTCH-ReconfRqstFDD       OPTIONAL,
    pICH-Parameters-CTCH-ReconfRqstFDD          PICH-Parameters-CTCH-ReconfRqstFDD      OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { Secondary-CCPCH-CTCH-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MICH-Parameters-CTCH-ReconfRqstFDD      CRITICALITY reject  EXTENSION MICH-Parameters-CTCH-ReconfRqstFDD        PRESENCE optional },
    ...
}

FACH-ParametersList-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container {{ FACH-ParametersListIEs-CTCH-ReconfRqstFDD }}

FACH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-ParametersListIE-CTCH-ReconfRqstFDD    CRITICALITY reject  TYPE FACH-ParametersListIE-CTCH-ReconfRqstFDD   PRESENCE mandatory }
}

FACH-ParametersListIE-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxFACHCell)) OF FACH-ParametersItem-CTCH-ReconfRqstFDD

FACH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonTransportChannelID                CommonTransportChannelID,
    maxFACH-Power                           DL-Power        OPTIONAL,
```

```
    toAWS                                   ToAWS           OPTIONAL,
    toAWE                                   ToAWE           OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer  { { FACH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

FACH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-TnlQos           CRITICALITY ignore      EXTENSION TnlQos    PRESENCE optional },
    ...
}

PCH-Parameters-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container {{ PCH-ParametersIE-CTCH-ReconfRqstFDD }}

PCH-ParametersIE-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-PCH-ParametersItem-CTCH-ReconfRqstFDD   CRITICALITY reject  TYPE PCH-ParametersItem-CTCH-ReconfRqstFDD  PRESENCE mandatory }
}

PCH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonTransportChannelID                CommonTransportChannelID,
    pCH-Power                               DL-Power        OPTIONAL,
    toAWS                                   ToAWS           OPTIONAL,
    toAWE                                   ToAWE           OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer  { { PCH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs} }       OPTIONAL,
    ...
}

PCH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-TnlQos           CRITICALITY ignore      EXTENSION TnlQos    PRESENCE optional },
    ...
}

PICH-Parameters-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container {{ PICH-ParametersIE-CTCH-ReconfRqstFDD }}

PICH-ParametersIE-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-PICH-ParametersItem-CTCH-ReconfRqstFDD  CRITICALITY reject  TYPE PICH-ParametersItem-CTCH-ReconfRqstFDD   PRESENCE mandatory }
}

PICH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID             CommonPhysicalChannelID,
    pICH-Power                          PICH-Power      OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer  { { PICH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

PICH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MICH-Parameters-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID             CommonPhysicalChannelID,
    mICH-Power                          PICH-Power                                                              OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer  { { MICH-Parameters-CTCH-ReconfRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}
```

```
MICH-Parameters-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PRACHList-CTCH-ReconfRqstFDD ::= SEQUENCE {
    pRACH-ParametersList-CTCH-ReconfRqstFDD     PRACH-ParametersList-CTCH-ReconfRqstFDD OPTIONAL,
    aICH-ParametersList-CTCH-ReconfRqstFDD      AICH-ParametersList-CTCH-ReconfRqstFDD  OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { PRACH-CTCH-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

PRACH-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PRACH-ParametersList-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container {{ PRACH-ParametersListIEs-CTCH-ReconfRqstFDD }}

PRACH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-PRACH-ParametersListIE-CTCH-ReconfRqstFDD   CRITICALITY reject  TYPE PRACH-ParametersListIE-CTCH-ReconfRqstFDD  PRESENCE mandatory }
}

PRACH-ParametersListIE-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF PRACH-ParametersItem-CTCH-ReconfRqstFDD

PRACH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    preambleSignatures                      PreambleSignatures                                                  OPTIONAL,
    allowedSlotFormatInformation            AllowedSlotFormatInformationList-CTCH-ReconfRqstFDD                 OPTIONAL,
    rACH-SubChannelNumbers                  RACH-SubChannelNumbers                                              OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer  { { PRACH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs} }  OPTIONAL,
    ...
}

PRACH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
{ ID    id-TnlQos           CRITICALITY ignore      EXTENSION TnlQos    PRESENCE optional },
    ...
}

AllowedSlotFormatInformationList-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1.. maxNrOfSlotFormatsPRACH)) OF AllowedSlotFormatInformationItem-CTCH-
ReconfRqstFDD

AllowedSlotFormatInformationItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    rACH-SlotFormat                         RACH-SlotFormat,
    iE-Extensions                           ProtocolExtensionContainer  { { AllowedSlotFormatInformationItem-CTCH-ReconfRqstFDD-ExtIEs} }
    OPTIONAL,
    ...
}

AllowedSlotFormatInformationItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AICH-ParametersList-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container {{ AICH-ParametersListIEs-CTCH-ReconfRqstFDD }}
```

```
AICH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-AICH-ParametersListIE-CTCH-ReconfRqstFDD    CRITICALITY reject  TYPE AICH-ParametersListIE-CTCH-ReconfRqstFDD   PRESENCE mandatory }
}

AICH-ParametersListIE-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF AICH-ParametersItem-CTCH-ReconfRqstFDD

AICH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID             CommonPhysicalChannelID,
    aICH-Power                          AICH-Power      OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer  { { AICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

AICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST TDD
--
-- **************************************************************

CommonTransportChannelReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CommonTransportChannelReconfigurationRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonTransportChannelReconfigurationRequestTDD-Extensions}}   OPTIONAL,
    ...
}

CommonTransportChannelReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                                    CRITICALITY reject  TYPE C-ID                                       PRESENCE mandatory }|
    { ID id-ConfigurationGenerationID               CRITICALITY reject  TYPE ConfigurationGenerationID                  PRESENCE mandatory }|
    { ID id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD   CRITICALITY reject  TYPE Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD   PRESENCE
optional    }|
    { ID id-PICH-Parameters-CTCH-ReconfRqstTDD      CRITICALITY reject  TYPE PICH-Parameters-CTCH-ReconfRqstTDD      PRESENCE optional }|
    { ID id-FACH-ParametersList-CTCH-ReconfRqstTDD  CRITICALITY reject  TYPE FACH-ParametersList-CTCH-ReconfRqstTDD  PRESENCE optional }|
    { ID id-PCH-Parameters-CTCH-ReconfRqstTDD       CRITICALITY reject  TYPE PCH-Parameters-CTCH-ReconfRqstTDD       PRESENCE optional },
    ...
}

CommonTransportChannelReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-FPACH-LCR-Parameters-CTCH-ReconfRqstTDD         CRITICALITY reject  EXTENSION FPACH-LCR-Parameters-CTCH-ReconfRqstTDD
    PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-MICH-Parameters-CTCH-ReconfRqstTDD              CRITICALITY reject  EXTENSION MICH-Parameters-CTCH-ReconfRqstTDD
    PRESENCE optional }|
    { ID id-PLCCH-Parameters-CTCH-ReconfRqstTDD             CRITICALITY ignore  EXTENSION PLCCH-Parameters-CTCH-ReconfRqstTDD
    PRESENCE optional }|
    { ID id-S-CCPCH-768-Parameters-CTCH-ReconfRqstTDD       CRITICALITY reject  EXTENSION Secondary-CCPCH-768-Parameters-CTCH-ReconfRqstTDD
    PRESENCE optional }|
    { ID id-PICH-768-Parameters-CTCH-ReconfRqstTDD          CRITICALITY reject  EXTENSION PICH-768-Parameters-CTCH-ReconfRqstTDD
    PRESENCE optional }|
    { ID id-MICH-768-Parameters-CTCH-ReconfRqstTDD          CRITICALITY reject  EXTENSION MICH-768-Parameters-CTCH-ReconfRqstTDD
    PRESENCE optional }|
```

```
    { ID id-UPPCH-LCR-Parameters-CTCH-ReconfRqstTDD        CRITICALITY reject  EXTENSION UPPCH-LCR-Parameters-CTCH-ReconfRqstTDD          PRESENCE
optional }, -- Applicable to 1.28Mcps TDD only
    ...
}

Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD::= SEQUENCE {
    cCTrCH-ID                       CCTrCH-ID,
    secondaryCCPCHList              Secondary-CCPCHList-CTCH-ReconfRqstTDD          OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer  { { Secondary-CCPCH-CTCH-ReconfRqstTDD-ExtIEs} }      OPTIONAL,
    ...
}

Secondary-CCPCH-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Additional-S-CCPCH-Parameters-CTCH-ReconfRqstTDD           CRITICALITY reject  EXTENSION Secondary-CCPCH-parameterExtendedList-CTCH-
ReconfRqstTDD       PRESENCE optional   }|
    -- Applicable to 3.84Mcps TDD only, used when more than maxNrOfSCCPCHs SCCPCHs are to be reconfigured.
    { ID id-Additional-S-CCPCH-LCR-Parameters-CTCH-ReconfRqstTDD        CRITICALITY reject  EXTENSION Secondary-CCPCH-LCR-parameterExtendedList-
CTCH-ReconfRqstTDD  PRESENCE optional   },
    -- Applicable to 1.28Mcps TDD only, used when more than maxNrOfSCCPCHs SCCPCHs are to be reconfigured.
    ...
}

Secondary-CCPCHList-CTCH-ReconfRqstTDD ::= ProtocolIE-Single-Container {{ Secondary-CCPCHListIEs-CTCH-ReconfRqstTDD }}

Secondary-CCPCHListIEs-CTCH-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD    CRITICALITY reject  TYPE Secondary-CCPCHListIE-CTCH-ReconfRqstTDD   PRESENCE mandatory }
}

Secondary-CCPCHListIE-CTCH-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHs)) OF Secondary-CCPCHItem-CTCH-ReconfRqstTDD

Secondary-CCPCHItem-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID             CommonPhysicalChannelID,
    sCCPCH-Power                        DL-Power        OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer  { { Secondary-CCPCHItem-CTCH-ReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

Secondary-CCPCHItem-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-parameterExtendedList-CTCH-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHsinExt)) OF Secondary-CCPCHItem-CTCH-ReconfRqstTDD
    -- Applicable to 3.84Mcps TDD only, used when more than maxNrOfSCCPCHs SCCPCHs are to be reconfigured.

Secondary-CCPCH-LCR-parameterExtendedList-CTCH-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHsLCRinExt)) OF Secondary-CCPCHItem-CTCH-
ReconfRqstTDD
    -- Applicable to 1.28Mcps TDD only, used when more than maxNrOfSCCPCHs SCCPCHs are to be reconfigured.

PICH-Parameters-CTCH-ReconfRqstTDD   ::= SEQUENCE {
    commonPhysicalChannelID             CommonPhysicalChannelID,
    pICH-Power                          PICH-Power      OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer  { { PICH-Parameters-CTCH-ReconfRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}
```

```
PICH-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-ParametersList-CTCH-ReconfRqstTDD ::= SEQUENCE (SIZE (0..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-ReconfRqstTDD

FACH-ParametersItem-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonTransportChannelID        CommonTransportChannelID,
    toAWS                           ToAWS           OPTIONAL,
    toAWE                           ToAWE           OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer  { { FACH-ParametersItem-CTCH-ReconfRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

FACH-ParametersItem-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-maxFACH-Power-LCR-CTCH-ReconfRqstTDD         CRITICALITY reject      EXTENSION DL-Power                PRESENCE optional }|
    --  Applicable to 1.28Mcps TDD only
    { ID    id-TnlQos                                       CRITICALITY ignore      EXTENSION TnlQos                  PRESENCE optional },
    ...
}

PCH-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonTransportChannelID        CommonTransportChannelID,
    toAWS                           ToAWS           OPTIONAL,
    toAWE                           ToAWE           OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer  { { PCH-Parameters-CTCH-ReconfRqstTDD-ExtIEs} }       OPTIONAL,
    ...
}

PCH-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-PCH-Power-LCR-CTCH-ReconfRqstTDD        CRITICALITY reject      EXTENSION DL-Power                    PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-TnlQos                                  CRITICALITY ignore      EXTENSION TnlQos                      PRESENCE optional },
    ...
}

FPACH-LCR-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelId         CommonPhysicalChannelID,
    fPACHPower                      FPACH-Power     OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer  { { FPACH-LCR-Parameters-CTCH-ReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

FPACH-LCR-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MICH-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID             CommonPhysicalChannelID,
    mICH-Power                          PICH-Power                                                                  OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer  { { MICH-Parameters-CTCH-ReconfRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}
```

```
MICH-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PLCCH-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    maxPowerPLCCH                       DL-Power,
    iE-Extensions                       ProtocolExtensionContainer  { { PLCCH-Parameters-CTCH-ReconfRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

PLCCH-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-768-Parameters-CTCH-ReconfRqstTDD::= SEQUENCE {
    cCTrCH-ID                       CCTrCH-ID,
    secondaryCCPCH768List           Secondary-CCPCH-768-List-CTCH-ReconfRqstTDD         OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer  { { Secondary-CCPCH-768-CTCH-ReconfRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

Secondary-CCPCH-768-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-768-List-CTCH-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHs768)) OF Secondary-CCPCH-768-Item-CTCH-ReconfRqstTDD

Secondary-CCPCH-768-Item-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID768          CommonPhysicalChannelID768,
    sCCPCH-Power                        DL-Power        OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer  { { Secondary-CCPCH-768-Item-CTCH-ReconfRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

Secondary-CCPCH-768-Item-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PICH-768-Parameters-CTCH-ReconfRqstTDD   ::= SEQUENCE {
    commonPhysicalChannelID768          CommonPhysicalChannelID768,
    pICH-Power                          PICH-Power      OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer  { { PICH-768-Parameters-CTCH-ReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

PICH-768-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MICH-768-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID768          CommonPhysicalChannelID768,
    mICH-Power                          PICH-Power                                                                      OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer  { { MICH-768-Parameters-CTCH-ReconfRqstTDD-ExtIEs} }    OPTIONAL,
```

```
    ...
}

MICH-768-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


UPPCH-LCR-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    uPPCHPositionLCR               UPPCHPositionLCR        OPTIONAL,
    uARFCN                         UARFCN                  OPTIONAL,
    -- Mandatory for 1.28Mcps TDD when using multiple frequencies Corresponds to Nt [15]
    iE-Extensions                  ProtocolExtensionContainer { { UPPCH-LCR-Parameters-CTCH-ReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UPPCH-LCR-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE
--
-- **************************************************************

CommonTransportChannelReconfigurationResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CommonTransportChannelReconfigurationResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonTransportChannelReconfigurationResponse-Extensions}}     OPTIONAL,
    ...
}

CommonTransportChannelReconfigurationResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CriticalityDiagnostics       CRITICALITY     ignore          TYPE    CriticalityDiagnostics            PRESENCE optional},
    ...
}

CommonTransportChannelReconfigurationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE
--
-- **************************************************************

CommonTransportChannelReconfigurationFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CommonTransportChannelReconfigurationFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonTransportChannelReconfigurationFailure-Extensions}}          OPTIONAL,
    ...
}
```

```
CommonTransportChannelReconfigurationFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-Cause                        CRITICALITY ignore          TYPE    Cause                                   PRESENCE mandatory }|
    { ID    id-CriticalityDiagnostics       CRITICALITY ignore          TYPE    CriticalityDiagnostics                  PRESENCE optional },
    ...
}

CommonTransportChannelReconfigurationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL DELETION REQUEST
--
-- **************************************************************

CommonTransportChannelDeletionRequest ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container        {{CommonTransportChannelDeletionRequest-IEs}},
    protocolExtensions          ProtocolExtensionContainer  {{CommonTransportChannelDeletionRequest-Extensions}}         OPTIONAL,
    ...
}

CommonTransportChannelDeletionRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                             CRITICALITY reject      TYPE C-ID                                   PRESENCE mandatory }|
    { ID    id-CommonPhysicalChannelID          CRITICALITY reject      TYPE CommonPhysicalChannelID                PRESENCE mandatory }|
    { ID    id-ConfigurationGenerationID        CRITICALITY reject      TYPE ConfigurationGenerationID              PRESENCE mandatory },
    ...
}

CommonTransportChannelDeletionRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-CommonPhysicalChannelID768-CommonTrChDeletionReq    CRITICALITY reject  EXTENSION CommonPhysicalChannelID768  PRESENCE optional },
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL DELETION RESPONSE
--
-- **************************************************************

CommonTransportChannelDeletionResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CommonTransportChannelDeletionResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonTransportChannelDeletionResponse-Extensions}}         OPTIONAL,
    ...
}

CommonTransportChannelDeletionResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CriticalityDiagnostics       CRITICALITY     ignore      TYPE    CriticalityDiagnostics                  PRESENCE optional},
    ...
}

CommonTransportChannelDeletionResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
-- **************************************************************
--
-- BLOCK RESOURCE REQUEST
--
-- **************************************************************

BlockResourceRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{BlockResourceRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{BlockResourceRequest-Extensions}}                   OPTIONAL,
    ...
}

BlockResourceRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                            CRITICALITY reject      TYPE C-ID                                       PRESENCE mandatory   }|
    { ID id-BlockingPriorityIndicator       CRITICALITY reject      TYPE BlockingPriorityIndicator                  PRESENCE mandatory   }|
    { ID id-ShutdownTimer                   CRITICALITY reject      TYPE ShutdownTimer                              PRESENCE conditional },
    -- The IE shall be present if the Blocking Priority Indicator IE indicates "Normal Priority"--
    ...
}

BlockResourceRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- BLOCK RESOURCE RESPONSE
--
-- **************************************************************

BlockResourceResponse ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container        {{BlockResourceResponse-IEs}},
    protocolExtensions          ProtocolExtensionContainer  {{BlockResourceResponse-Extensions}}                    OPTIONAL,
    ...
}

BlockResourceResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CriticalityDiagnostics      CRITICALITY ignore      TYPE CriticalityDiagnostics     PRESENCE optional},
    ...
}

BlockResourceResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- BLOCK RESOURCE FAILURE
--
-- **************************************************************

BlockResourceFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{BlockResourceFailure-IEs}},
```

```
    protocolExtensions      ProtocolExtensionContainer  {{BlockResourceFailure-Extensions}}     OPTIONAL,
    ...
}

BlockResourceFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Cause                       CRITICALITY ignore      TYPE Cause                                  PRESENCE mandatory  }|
    { ID id-CriticalityDiagnostics      CRITICALITY ignore      TYPE CriticalityDiagnostics                 PRESENCE optional   },
    ...
}

BlockResourceFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- UNBLOCK RESOURCE INDICATION
--
-- **************************************************************

UnblockResourceIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{UnblockResourceIndication-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{UnblockResourceIndication-Extensions}}    OPTIONAL,
    ...
}

UnblockResourceIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID            CRITICALITY ignore      TYPE C-ID       PRESENCE mandatory },
    ...
}

UnblockResourceIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- AUDIT REQUIRED INDICATION
--
-- **************************************************************

AuditRequiredIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{AuditRequiredIndication-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{AuditRequiredIndication-Extensions}}      OPTIONAL,
    ...
}

AuditRequiredIndication-IEs NBAP-PROTOCOL-IES ::= {
    ...
}

AuditRequiredIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
-- **************************************************************
--
-- AUDIT REQUEST
--
-- **************************************************************

AuditRequest ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container        {{AuditRequest-IEs}},
    protocolExtensions          ProtocolExtensionContainer  {{AuditRequest-Extensions}}     OPTIONAL,
    ...
}

AuditRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Start-Of-Audit-Sequence-Indicator       CRITICALITY reject  TYPE Start-Of-Audit-Sequence-Indicator        PRESENCE mandatory },
    ...
}

AuditRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- AUDIT RESPONSE
--
-- **************************************************************

AuditResponse ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container        {{AuditResponse-IEs}},
    protocolExtensions          ProtocolExtensionContainer  {{AuditResponse-Extensions}}        OPTIONAL,
    ...
}

AuditResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-End-Of-Audit-Sequence-Indicator             CRITICALITY ignore  TYPE End-Of-Audit-Sequence-Indicator             PRESENCE mandatory }|
    { ID id-Cell-InformationList-AuditRsp               CRITICALITY ignore  TYPE Cell-InformationList-AuditRsp               PRESENCE optional }|
    { ID id-CCP-InformationList-AuditRsp                CRITICALITY ignore  TYPE CCP-InformationList-AuditRsp                PRESENCE optional }|
    -- CCP (Communication Control Port) --
    { ID id-Local-Cell-InformationList-AuditRsp         CRITICALITY ignore  TYPE Local-Cell-InformationList-AuditRsp         PRESENCE optional }|
    { ID id-Local-Cell-Group-InformationList-AuditRsp   CRITICALITY ignore  TYPE Local-Cell-Group-InformationList-AuditRsp   PRESENCE optional }|
    { ID id-CriticalityDiagnostics                      CRITICALITY ignore  TYPE CriticalityDiagnostics                      PRESENCE optional },
    ...
}

AuditResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Power-Local-Cell-Group-InformationList-AuditRsp CRITICALITY ignore  EXTENSION Power-Local-Cell-Group-InformationList-AuditRsp
    PRESENCE optional },
    ...
}

Cell-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxCellinNodeB)) OF ProtocolIE-Single-Container {{ Cell-InformationItemIE-AuditRsp}}

Cell-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
```

```
    { ID    id-Cell-InformationItem-AuditRsp       CRITICALITY ignore     TYPE Cell-InformationItem-AuditRsp          PRESENCE optional }
}

Cell-InformationItem-AuditRsp ::= SEQUENCE {
    c-ID                                C-ID,
    configurationGenerationID           ConfigurationGenerationID,
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    local-Cell-ID                       Local-Cell-ID,
    primary-SCH-Information             P-SCH-Information-AuditRsp                  OPTIONAL,
    secondary-SCH-Information           S-SCH-Information-AuditRsp                  OPTIONAL,
    primary-CPICH-Information           P-CPICH-Information-AuditRsp                OPTIONAL,
    secondary-CPICH-InformationList     S-CPICH-InformationList-AuditRsp            OPTIONAL,
    primary-CCPCH-Information           P-CCPCH-Information-AuditRsp                OPTIONAL,
    bCH-Information                     BCH-Information-AuditRsp                    OPTIONAL,
    secondary-CCPCH-InformationList     S-CCPCH-InformationList-AuditRsp            OPTIONAL,
    pCH-Information                     PCH-Information-AuditRsp                    OPTIONAL,
    pICH-Information                    PICH-Information-AuditRsp                   OPTIONAL,
    fACH-InformationList                FACH-InformationList-AuditRsp               OPTIONAL,
    pRACH-InformationList               PRACH-InformationList-AuditRsp              OPTIONAL,
    rACH-InformationList                RACH-InformationList-AuditRsp               OPTIONAL,
    aICH-InformationList                AICH-InformationList-AuditRsp               OPTIONAL,
    notUsed-1-pCPCH-InformationList     NULL                                        OPTIONAL,
    notUsed-2-cPCH-InformationList      NULL                                        OPTIONAL,
    notUsed-3-aP-AICH-InformationList   NULL                                        OPTIONAL,
    notUsed-4-cDCA-ICH-InformationList  NULL                                        OPTIONAL,
    sCH-Information                     SCH-Information-AuditRsp                    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer  { { Cell-InformationItem-AuditRsp-ExtIEs} }   OPTIONAL,
    ...
}

Cell-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-FPACH-LCR-InformationList-AuditRsp      CRITICALITY ignore  EXTENSION FPACH-LCR-InformationList-AuditRsp        PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-DwPCH-LCR-InformationList-AuditRsp      CRITICALITY ignore  EXTENSION Common-PhysicalChannel-Status-Information PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-HSDSCH-Resources-Information-AuditRsp   CRITICALITY ignore  EXTENSION HS-DSCH-Resources-Information-AuditRsp    PRESENCE optional }|
    -- For 1.28Mcps TDD, this HS-DSCH Resource Information is for the first Frequency repetition, HS-DSCH Resource Information for Frequency
repetitions 2 and on, should be defined in MultipleFreq-HS-DSCH-Resources-InformationList-AuditRsp.
    { ID id-MICH-Information-AuditRsp               CRITICALITY ignore  EXTENSION Common-PhysicalChannel-Status-Information    PRESENCE optional }|
    { ID id-S-CCPCH-InformationListExt-AuditRsp     CRITICALITY ignore  EXTENSION S-CCPCH-InformationListExt-AuditRsp          PRESENCE optional }|
    -- Applicable to 3.84Mcps TDD only, used when there are more than maxSCCPCHCell SCCPCHs in the cell.
    { ID id-S-CCPCH-LCR-InformationListExt-AuditRsp CRITICALITY ignore  EXTENSION S-CCPCH-LCR-InformationListExt-AuditRsp      PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only, used when there are more than maxSCCPCHCell SCCPCHs in the cell.
    { ID id-E-DCH-Resources-Information-AuditRsp    CRITICALITY ignore  EXTENSION E-DCH-Resources-Information-AuditRsp         PRESENCE optional }|
    -- For 1.28Mcps TDD, this E-DCH Resource Information is for the first Frequency repetition, E-DCH Resource Information for Frequency
repetitions 2 and on, should be defined in MultipleFreq-E-DCH-Resources-InformationList-AuditRsp.
    { ID id-PLCCH-InformationList-AuditRsp          CRITICALITY ignore  EXTENSION PLCCH-InformationList-AuditRsp              PRESENCE optional }|
    { ID id-P-CCPCH-768-Information-AuditRsp        CRITICALITY ignore  EXTENSION Common-PhysicalChannel-Status-Information768 PRESENCE optional }|
    { ID id-S-CCPCH-768-InformationList-AuditRsp    CRITICALITY ignore  EXTENSION S-CCPCH-768-InformationList-AuditRsp         PRESENCE optional }|
    { ID id-PICH-768-Information-AuditRsp           CRITICALITY ignore  EXTENSION Common-PhysicalChannel-Status-Information768 PRESENCE optional }|
    { ID id-PRACH-768-InformationList-AuditRsp      CRITICALITY ignore  EXTENSION PRACH-768-InformationList-AuditRsp           PRESENCE optional }|
    { ID id-SCH-768-Information-AuditRsp            CRITICALITY ignore  EXTENSION Common-PhysicalChannel-Status-Information768 PRESENCE optional }|
    { ID id-MICH-768-Information-AuditRsp           CRITICALITY ignore  EXTENSION Common-PhysicalChannel-Status-Information768 PRESENCE optional }|
```

```
    { ID id-E-RUCCH-InformationList-AuditRsp        CRITICALITY ignore  EXTENSION E-RUCCH-InformationList-AuditRsp             PRESENCE optional }|
    { ID id-E-RUCCH-768-InformationList-AuditRsp    CRITICALITY ignore  EXTENSION E-RUCCH-768-InformationList-AuditRsp         PRESENCE optional }|
    { ID id-Cell-Frequency-List-Information-LCR-MulFreq-AuditRsp    CRITICALITY ignore  EXTENSION  Cell-Frequency-List-Information-LCR-MulFreq-
AuditRsp     PRESENCE optional }|   -- Applicable to 1.28Mcps TDD when using multiple frequencies
    { ID id-UPPCH-LCR-InformationList-AuditRsp      CRITICALITY ignore      EXTENSION UPPCH-LCR-InformationList-AuditRsp    PRESENCE optional }|
      -- Applicable to 1.28Mcps TDD only
    { ID id-multipleFreq-HS-DSCH-Resources-InformationList-AuditRsp CRITICALITY ignore  EXTENSION MultipleFreq-HS-DSCH-Resources-InformationList-
AuditRsp    PRESENCE optional }|
-- Applicable to 1.28Mcps TDD when using multiple frequencies.This HS-DSCH Resource Information is for the 2nd and beyond frequencies.
    { ID id-MultipleFreq-E-DCH-Resources-InformationList-AuditRsp   CRITICALITY ignore  EXTENSION MultipleFreq-E-DCH-Resources-InformationList-
AuditRsp    PRESENCE optional },
    -- Applicable to 1.28Mcps TDD when using multiple frequencies. This E-DCH Resource Information is for the 2nd and beyond frequencies.
    ...
}

P-SCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ P-SCH-InformationIE-AuditRsp }}

P-SCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-P-SCH-Information   CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information                 PRESENCE mandatory }
}

S-SCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ S-SCH-InformationIE-AuditRsp }}

S-SCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-S-SCH-Information   CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information                 PRESENCE mandatory }
}

P-CPICH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ P-CPICH-InformationIE-AuditRsp }}

P-CPICH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-P-CPICH-Information CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information                 PRESENCE mandatory }
}

S-CPICH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Single-Container {{ S-CPICH-InformationItemIE-AuditRsp }}

S-CPICH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-S-CPICH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information               PRESENCE mandatory }
}

P-CCPCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ P-CCPCH-InformationIE-AuditRsp }}

P-CCPCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-P-CCPCH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information               PRESENCE mandatory }
}

BCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ BCH-InformationIE-AuditRsp }}

BCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-BCH-Information   CRITICALITY ignore    TYPE Common-TransportChannel-Status-Information                 PRESENCE mandatory }
}

S-CCPCH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxSCCPCHCell)) OF ProtocolIE-Single-Container {{ S-CCPCH-InformationItemIE-AuditRsp }}

S-CCPCH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
```

```
    { ID id-S-CCPCH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information                PRESENCE mandatory }
}

PCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ PCH-InformationIE-AuditRsp }}

PCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-PCH-Information   CRITICALITY ignore    TYPE Common-TransportChannel-Status-Information                PRESENCE mandatory }
}

PICH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ PICH-InformationIE-AuditRsp }}

PICH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-PICH-Information   CRITICALITY ignore   TYPE Common-PhysicalChannel-Status-Information                PRESENCE mandatory }
}

FACH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxFACHCell)) OF ProtocolIE-Single-Container {{ FACH-InformationItemIE-AuditRsp }}

FACH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-Information   CRITICALITY ignore   TYPE Common-TransportChannel-Status-Information                PRESENCE mandatory }
}

PRACH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ PRACH-InformationItemIE-AuditRsp }}

PRACH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-PRACH-Information   CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information                PRESENCE mandatory }
}

RACH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxRACHCell)) OF ProtocolIE-Single-Container {{ RACH-InformationItemIE-AuditRsp }}

RACH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-RACH-Information   CRITICALITY ignore   TYPE Common-TransportChannel-Status-Information                PRESENCE mandatory }
}

AICH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ AICH-InformationItemIE-AuditRsp }}

AICH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-AICH-Information   CRITICALITY ignore   TYPE Common-PhysicalChannel-Status-Information                PRESENCE mandatory }
}

SCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ SCH-InformationIE-AuditRsp }}

SCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-SCH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information                PRESENCE mandatory }
}

FPACH-LCR-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxFPACHCell)) OF ProtocolIE-Single-Container {{ FPACH-LCR-InformationItemIE-AuditRsp }}

FPACH-LCR-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-FPACH-LCR-Information-AuditRsp   CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information        PRESENCE mandatory }
}

HS-DSCH-Resources-Information-AuditRsp ::= SEQUENCE {
    resourceOperationalState           ResourceOperationalState,
    availabilityStatus                 AvailabilityStatus,
```

```
    iE-Extensions                       ProtocolExtensionContainer  {{ HS-DSCH-Resources-Information-AuditRsp-ExtIEs }}     OPTIONAL,
    ...
}

HS-DSCH-Resources-Information-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UARFCNforNt     CRITICALITY ignore      EXTENSION UARFCN        PRESENCE    optional },
    --  Applicable to 1.28Mcps TDD when using multiple frequencies.
    ...
}

S-CCPCH-InformationListExt-AuditRsp ::= SEQUENCE (SIZE (1..maxSCCPCHCellinExt)) OF ProtocolIE-Single-Container {{ S-CCPCH-InformationItemIE-
AuditRsp }}

S-CCPCH-LCR-InformationListExt-AuditRsp ::= SEQUENCE (SIZE (1..maxSCCPCHCellinExtLCR)) OF ProtocolIE-Single-Container {{ S-CCPCH-InformationItemIE-
AuditRsp }}

E-DCH-Resources-Information-AuditRsp ::= SEQUENCE {
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    iE-Extensions                       ProtocolExtensionContainer  {{ E-DCH-Resources-Information-AuditRsp-ExtIEs }}    OPTIONAL,
    ...
}

E-DCH-Resources-Information-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UARFCNforNt     CRITICALITY ignore      EXTENSION UARFCN        PRESENCE    optional },
    -- Applicable to 1.28Mcps TDD when using multiple frequencies.
    ...
}

PLCCH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxPLCCHCell)) OF ProtocolIE-Single-Container {{ PLCCH-InformationItemIE-AuditRsp }}

PLCCH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-PLCCH-Information-AuditRsp   CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information            PRESENCE mandatory }
}

S-CCPCH-768-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxSCCPCHCell768)) OF ProtocolIE-Single-Container {{ S-CCPCH-768-InformationItemIE-
AuditRsp }}

S-CCPCH-768-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-S-CCPCH-768-Information-AuditRsp   CRITICALITY ignore   TYPE Common-PhysicalChannel-Status-Information768    PRESENCE mandatory }
}

PRACH-768-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ PRACH-768-InformationItemIE-AuditRsp }}

PRACH-768-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-PRACH-768-Information   CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information768             PRESENCE mandatory }
}

E-RUCCH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxE-RUCCHCell)) OF ProtocolIE-Single-Container {{ E-RUCCH-InformationItemIE-AuditRsp }}

E-RUCCH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-E-RUCCH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information               PRESENCE mandatory }
}
```

```
E-RUCCH-768-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxE-RUCCHCell)) OF ProtocolIE-Single-Container {{ E-RUCCH-768-InformationItemIE-
AuditRsp }}

E-RUCCH-768-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-E-RUCCH-768-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information768         PRESENCE mandatory }
}

Cell-Frequency-List-Information-LCR-MulFreq-AuditRsp ::= SEQUENCE (SIZE (1..maxFrequencyinCell)) OF ProtocolIE-Single-Container {{ Cell-Frequency-
List-InformationIE-LCR-MulFreq-AuditRsp }}

Cell-Frequency-List-InformationIE-LCR-MulFreq-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-Cell-Frequency-List-InformationItem-LCR-MulFreq-AuditRsp    CRITICALITY ignore  TYPE Cell-Frequency-List-InformationItem-LCR-MulFreq-
AuditRsp        PRESENCE mandatory }
}

Cell-Frequency-List-InformationItem-LCR-MulFreq-AuditRsp ::= SEQUENCE {
    uARFCN                          UARFCN,
    resourceOperationalState        ResourceOperationalState,
    availabilityStatus              AvailabilityStatus,
    iE-Extensions                   ProtocolExtensionContainer  {{ Cell-Frequency-List-InformationItem-LCR-MulFreq-AuditRsp-ExtIEs }}
    OPTIONAL,
    ...
}

Cell-Frequency-List-InformationItem-LCR-MulFreq-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UPPCH-LCR-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxFrequencyinCell)) OF ProtocolIE-Single-Container {{ UPPCH-LCR-InformationIE-AuditRsp
}}

UPPCH-LCR-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-UPPCH-LCR-InformationItem-AuditRsp   CRITICALITY ignore TYPE UPPCH-LCR-InformationItem-AuditRsp           PRESENCE mandatory }
}

UPPCH-LCR-InformationItem-AuditRsp ::= SEQUENCE {
    uARFCN                          UARFCN              OPTIONAL,
    uPPCHPositionLCR                UPPCHPositionLCR,
    resourceOperationalState        ResourceOperationalState,
    availabilityStatus              AvailabilityStatus,
    iE-Extensions                   ProtocolExtensionContainer {{ UPPCH-LCR-InformationItem-AuditRsp-ExtIEs }}    OPTIONAL,
    ...
}

UPPCH-LCR-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MultipleFreq-HS-DSCH-Resources-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxFrequencyinCell-1)) OF ProtocolIE-Single-Container
{{ MultipleFreq-HS-DSCH-Resources-InformationItem-AuditRsp}}
--Includes the 2nd through the max number of frequencies information repetitions.

MultipleFreq-HS-DSCH-Resources-InformationItem-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-HSDSCH-Resources-Information-AuditRsp   CRITICALITY ignore  TYPE HS-DSCH-Resources-Information-AuditRsp   PRESENCE mandatory }
```

```
}


MultipleFreq-E-DCH-Resources-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxFrequencyinCell-1)) OF ProtocolIE-Single-Container {{ MultipleFreq-
E-DCH-Resources-InformationItem-AuditRsp}}
    -- Includes the 2nd through the max number of frequencies information repetitions.

MultipleFreq-E-DCH-Resources-InformationItem-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-E-DCH-Resources-Information-AuditRsp    CRITICALITY ignore  TYPE E-DCH-Resources-Information-AuditRsp     PRESENCE mandatory }
}

CCP-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxCCPinNodeB)) OF ProtocolIE-Single-Container {{ CCP-InformationItemIE-AuditRsp }}

CCP-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-CCP-InformationItem-AuditRsp            CRITICALITY ignore          TYPE CCP-InformationItem-AuditRsp        PRESENCE mandatory }
}

CCP-InformationItem-AuditRsp ::= SEQUENCE {
    communicationControlPortID          CommunicationControlPortID,
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    iE-Extensions                       ProtocolExtensionContainer  {{ CCP-InformationItem-AuditRsp-ExtIEs }}         OPTIONAL,
    ...
}

CCP-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Local-Cell-InformationList-AuditRsp  ::=SEQUENCE (SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-InformationItemIE-
AuditRsp }}

Local-Cell-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-InformationItem-AuditRsp     CRITICALITY ignore  TYPE Local-Cell-InformationItem-AuditRsp    PRESENCE mandatory}
}

Local-Cell-InformationItem-AuditRsp ::= SEQUENCE {
    local-Cell-ID                               Local-Cell-ID,
    dl-or-global-capacityCredit                 DL-or-Global-CapacityCredit,
    ul-capacityCredit                           UL-CapacityCredit                                                   OPTIONAL,
    commonChannelsCapacityConsumptionLaw        CommonChannelsCapacityConsumptionLaw,
    dedicatedChannelsCapacityConsumptionLaw     DedicatedChannelsCapacityConsumptionLaw,
    maximumDL-PowerCapability                   MaximumDL-PowerCapability                                           OPTIONAL,
    minSpreadingFactor                          MinSpreadingFactor                                                  OPTIONAL,
    minimumDL-PowerCapability                   MinimumDL-PowerCapability                                           OPTIONAL,
    local-Cell-Group-ID                         Local-Cell-ID                                                       OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer  {{ Local-Cell-InformationItem-AuditRsp-ExtIEs}}    OPTIONAL,
    ...
}

Local-Cell-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-ReferenceClockAvailability          CRITICALITY ignore          EXTENSION ReferenceClockAvailability         PRESENCE optional }|
    { ID id-Power-Local-Cell-Group-ID           CRITICALITY ignore          EXTENSION Local-Cell-ID                      PRESENCE optional }|
    { ID id-HSDPA-Capability                    CRITICALITY ignore          EXTENSION HSDPA-Capability                   PRESENCE optional }|
```

```
    { ID id-E-DCH-Capability                    CRITICALITY ignore          EXTENSION E-DCH-Capability                  PRESENCE optional }|
    { ID id-E-DCH-TTI2ms-Capability             CRITICALITY ignore          EXTENSION E-DCH-TTI2ms-Capability           PRESENCE conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to 'E-DCH Capable'.
    { ID id-E-DCH-SF-Capability                 CRITICALITY ignore          EXTENSION E-DCH-SF-Capability               PRESENCE conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to 'E-DCH Capable'.
    { ID id-E-DCH-HARQ-Combining-Capability     CRITICALITY ignore          EXTENSION E-DCH-HARQ-Combining-Capability   PRESENCE conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to 'E-DCH Capable'.
    { ID id-E-DCH-CapacityConsumptionLaw        CRITICALITY ignore          EXTENSION E-DCHCapacityConsumptionLaw       PRESENCE optional }|
    { ID id-F-DPCH-Capability                   CRITICALITY ignore          EXTENSION F-DPCH-Capability                 PRESENCE optional }|
    { ID id-E-DCH-TDD-CapacityConsumptionLaw    CRITICALITY ignore          EXTENSION E-DCH-TDD-CapacityConsumptionLaw  PRESENCE optional }|
    { ID id-ContinuousPacketConnectivityDTX-DRX-Capability          CRITICALITY ignore          EXTENSION ContinuousPacketConnectivityDTX-DRX-
Capability          PRESENCE    optional }|
    { ID id-Max-UE-DTX-Cycle                    CRITICALITY ignore          EXTENSION Max-UE-DTX-Cycle                  PRESENCE conditional }|
    -- The IE shall be present if Continuous Packet Connectivity DTX-DRX Capability IE is present and set to 'Continuous Packet Connectivity DTX-
DRX Capable'.
    { ID id-ContinuousPacketConnectivityHS-SCCH-less-Capability     CRITICALITY ignore          EXTENSION ContinuousPacketConnectivityHS-SCCH-less-
Capability          PRESENCE    optional }|
    { ID id-MIMO-Capability                     CRITICALITY ignore          EXTENSION MIMO-Capability                   PRESENCE optional }|
    { ID id-SixtyfourQAM-DL-Capability          CRITICALITY ignore          EXTENSION SixtyfourQAM-DL-Capability        PRESENCE optional }|
    { ID id-MBMS-Capability                     CRITICALITY ignore          EXTENSION MBMS-Capability                   PRESENCE optional }|
    { ID id-Enhanced-FACH-Capability            CRITICALITY ignore          EXTENSION Enhanced-FACH-Capability          PRESENCE optional }|
    { ID id-Enhanced-PCH-Capability             CRITICALITY ignore          EXTENSION Enhanced-PCH-Capability           PRESENCE conditional }|
    -- The IE shall be present if Enhanced FACH Capability IE is set to 'Enhanced FACH Capable'.
    { ID id-SixteenQAM-UL-Capability            CRITICALITY ignore          EXTENSION SixteenQAM-UL-Capability          PRESENCE optional }|
    { ID id-HSDSCH-MACdPDU-SizeCapability       CRITICALITY ignore          EXTENSION HSDSCH-MACdPDU-SizeCapability     PRESENCE optional }|
    { ID id-MBSFN-Only-Mode-Capability          CRITICALITY ignore          EXTENSION MBSFN-Only-Mode-Capability        PRESENCE optional }|
    { ID id-F-DPCH-SlotFormatCapability         CRITICALITY ignore          EXTENSION F-DPCH-SlotFormatCapability       PRESENCE optional },
    ...
}

Local-Cell-Group-InformationList-AuditRsp    ::= SEQUENCE (SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-Group-
InformationItemIE-AuditRsp }}

Local-Cell-Group-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-Group-InformationItem-AuditRsp   CRITICALITY ignore  TYPE Local-Cell-Group-InformationItem-AuditRsp  PRESENCE mandatory}
}

Local-Cell-Group-InformationItem-AuditRsp ::= SEQUENCE {
    local-Cell-Group-ID                         Local-Cell-ID,
    dl-or-global-capacityCredit                 DL-or-Global-CapacityCredit,
    ul-capacityCredit                           UL-CapacityCredit                       OPTIONAL,
    commonChannelsCapacityConsumptionLaw        CommonChannelsCapacityConsumptionLaw,
    dedicatedChannelsCapacityConsumptionLaw     DedicatedChannelsCapacityConsumptionLaw,
    iE-Extensions                               ProtocolExtensionContainer  {{ Local-Cell-Group-InformationItem-AuditRsp-ExtIEs}}    OPTIONAL,
    ...
}

Local-Cell-Group-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-CapacityConsumptionLaw        CRITICALITY ignore          EXTENSION E-DCHCapacityConsumptionLaw       PRESENCE optional }|
    { ID id-E-DCH-TDD-CapacityConsumptionLaw    CRITICALITY ignore          EXTENSION E-DCH-TDD-CapacityConsumptionLaw  PRESENCE optional },
    ...
}
```

```
Power-Local-Cell-Group-InformationList-AuditRsp  ::= SEQUENCE (SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Power-Local-Cell-
Group-InformationItemIE-AuditRsp }}

Power-Local-Cell-Group-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID    id-Power-Local-Cell-Group-InformationItem-AuditRsp          CRITICALITY     ignore      TYPE  Power-Local-Cell-Group-InformationItem-
AuditRsp        PRESENCE    mandatory}
}

Power-Local-Cell-Group-InformationItem-AuditRsp ::= SEQUENCE {
    power-Local-Cell-Group-ID                   Local-Cell-ID,
    maximumDL-PowerCapability                   MaximumDL-PowerCapability,
    iE-Extensions                               ProtocolExtensionContainer  {{ Power-Local-Cell-Group-InformationItem-AuditRsp-ExtIEs}}
    OPTIONAL,
    ...
}

Power-Local-Cell-Group-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- **************************************************************
--
-- AUDIT FAILURE
--
-- **************************************************************

AuditFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{AuditFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{AuditFailure-Extensions}}         OPTIONAL,
    ...
}

AuditFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Cause                           CRITICALITY ignore          TYPE Cause                                      PRESENCE mandatory   }|
    { ID id-CriticalityDiagnostics          CRITICALITY ignore          TYPE CriticalityDiagnostics                     PRESENCE optional    },
    ...
}

AuditFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON MEASUREMENT INITIATION REQUEST
--
-- **************************************************************

CommonMeasurementInitiationRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CommonMeasurementInitiationRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonMeasurementInitiationRequest-Extensions}}             OPTIONAL,
    ...
}
```

```
CommonMeasurementInitiationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                          CRITICALITY reject  TYPE MeasurementID                              PRESENCE mandatory }|
    { ID id-CommonMeasurementObjectType-CM-Rqst     CRITICALITY reject  TYPE CommonMeasurementObjectType-CM-Rqst      PRESENCE mandatory }|
    { ID id-CommonMeasurementType                  CRITICALITY reject  TYPE CommonMeasurementType                  PRESENCE mandatory }|
    { ID id-MeasurementFilterCoefficient           CRITICALITY reject  TYPE MeasurementFilterCoefficient           PRESENCE optional }|
    { ID id-ReportCharacteristics                  CRITICALITY reject  TYPE ReportCharacteristics                  PRESENCE mandatory }|
    { ID id-SFNReportingIndicator                  CRITICALITY reject  TYPE FNReportingIndicator                   PRESENCE mandatory }|
    { ID id-SFN                                    CRITICALITY reject  TYPE SFN                                    PRESENCE optional },
    ...
}

CommonMeasurementInitiationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-CommonMeasurementAccuracy                       CRITICALITY reject      EXTENSION CommonMeasurementAccuracy     PRESENCE optional}|
    { ID id-MeasurementRecoveryBehavior                     CRITICALITY ignore      EXTENSION MeasurementRecoveryBehavior   PRESENCE optional }|
    { ID id-RTWP-ReportingIndicator                         CRITICALITY reject      EXTENSION RTWP-ReportingIndicator
    PRESENCE optional}|
    { ID id-RTWP-CellPortion-ReportingIndicator             CRITICALITY reject      EXTENSION RTWP-CellPortion-ReportingIndicator
    PRESENCE optional}|
    { ID id-Reference-ReceivedTotalWideBandPowerReporting   CRITICALITY ignore      EXTENSION Reference-ReceivedTotalWideBandPowerReporting
    PRESENCE optional},
    ...
}

CommonMeasurementObjectType-CM-Rqst ::= CHOICE {
    cell                            Cell-CM-Rqst,
    rACH                            RACH-CM-Rqst,
    notUsed-cPCH                    NULL,
    ...,
    extension-CommonMeasurementObjectType-CM-Rqst       Extension-CommonMeasurementObjectType-CM-Rqst
}

Extension-CommonMeasurementObjectType-CM-Rqst   ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementObjectType-CM-RqstIE }}

Extension-CommonMeasurementObjectType-CM-RqstIE NBAP-PROTOCOL-IES ::= {
    { ID id-Power-Local-Cell-Group-choice-CM-Rqst   CRITICALITY reject  TYPE PowerLocalCellGroup-CM-Rqst           PRESENCE mandatory }
}

Cell-CM-Rqst ::= SEQUENCE {
    c-ID                            C-ID,
    timeSlot                        TimeSlot    OPTIONAL,   -- Applicable to 3.84Mcps TDD and 7.68Mcps TDD only
    iE-Extensions                   ProtocolExtensionContainer  { { CellItem-CM-Rqst-ExtIEs} }                   OPTIONAL,
    ...
}

CellItem-CM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TimeSlotLCR-CM-Rqst                     CRITICALITY reject  EXTENSION TimeSlotLCR                           PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    {ID id-NeighbouringCellMeasurementInformation   CRITICALITY ignore  EXTENSION NeighbouringCellMeasurementInformation PRESENCE optional }|
    {ID id-UARFCNforNt                              CRITICALITY reject  EXTENSION UARFCN                                PRESENCE optional }|
    -- Mandatory for 1.28Mcps TDD when using multiple frequencies and the requested common measurementype is the one except for "HS-DSCH Required
Power" or "HS-DSCH Provided Bit Rate"
    {ID id-UPPCHPositionLCR                         CRITICALITY reject  EXTENSION UPPCHPositionLCR                      PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
```

```
    ...
}

RACH-CM-Rqst ::= SEQUENCE {
    c-ID                            C-ID,
    commonTransportChannelID        CommonTransportChannelID,
    iE-Extensions                   ProtocolExtensionContainer  { { RACHItem-CM-Rqst-ExtIEs} }                    OPTIONAL,
    ...
}

RACHItem-CM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerLocalCellGroup-CM-Rqst ::= SEQUENCE {
    powerLocalCellGroupID           Local-Cell-ID,
    iE-Extensions                   ProtocolExtensionContainer {{ PowerLocalCellGroup-CM-Rqst-ExtIEs }}            OPTIONAL,
    ...
}

PowerLocalCellGroup-CM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON MEASUREMENT INITIATION RESPONSE
--
-- **************************************************************

CommonMeasurementInitiationResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CommonMeasurementInitiationResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonMeasurementInitiationResponse-Extensions}}            OPTIONAL,
    ...
}

CommonMeasurementInitiationResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                           CRITICALITY ignore      TYPE MeasurementID                          PRESENCE mandatory   }|
    { ID id-CommonMeasurementObjectType-CM-Rsp      CRITICALITY ignore      TYPE CommonMeasurementObjectType-CM-Rsp     PRESENCE optional }|
    { ID id-SFN                                     CRITICALITY ignore      TYPE SFN                                    PRESENCE optional }|
    { ID id-CriticalityDiagnostics                  CRITICALITY ignore      TYPE CriticalityDiagnostics                 PRESENCE optional },
    ...
}

CommonMeasurementInitiationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-CommonMeasurementAccuracy               CRITICALITY ignore      EXTENSION CommonMeasurementAccuracy             PRESENCE optional }|
    { ID id-MeasurementRecoverySupportIndicator     CRITICALITY ignore      EXTENSION MeasurementRecoverySupportIndicator   PRESENCE optional }|
    { ID id-Reference-ReceivedTotalWideBandPowerSupportIndicator                CRITICALITY ignore                      EXTENSION   Reference-
ReceivedTotalWideBandPowerSupportIndicator      PRESENCE optional }|
    { ID id-Reference-ReceivedTotalWideBandPower                                CRITICALITY ignore                      EXTENSION   Reference-
ReceivedTotalWideBandPower                      PRESENCE optional },
    ...
}
```

```
CommonMeasurementObjectType-CM-Rsp ::= CHOICE {
    cell                                            Cell-CM-Rsp,
    rACH                                            RACH-CM-Rsp,
    notUsed-cPCH                                    NULL,
    ...,
    extension-CommonMeasurementObjectType-CM-Rsp    Extension-CommonMeasurementObjectType-CM-Rsp
}

Extension-CommonMeasurementObjectType-CM-Rsp ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementObjectType-CM-RspIE }}

Extension-CommonMeasurementObjectType-CM-RspIE NBAP-PROTOCOL-IES ::= {
    { ID id-Power-Local-Cell-Group-choice-CM-Rsp    CRITICALITY ignore      TYPE PowerLocalCellGroup-CM-Rsp         PRESENCE mandatory }
}

Cell-CM-Rsp ::= SEQUENCE {
    commonMeasurementValue          CommonMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer  { { CellItem-CM-Rsp-ExtIEs} }                       OPTIONAL,
    ...
}

CellItem-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RACH-CM-Rsp ::= SEQUENCE {
    commonMeasurementValue          CommonMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer  { { RACHItem-CM-Rsp-ExtIEs} }                       OPTIONAL,
    ...
}

RACHItem-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerLocalCellGroup-CM-Rsp ::= SEQUENCE {
    commonMeasurementValue          CommonMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer {{ PowerLocalCellGroup-CM-Rsp-ExtIEs}}                OPTIONAL,
    ...
}

PowerLocalCellGroup-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON MEASUREMENT INITIATION FAILURE
--
-- **************************************************************

CommonMeasurementInitiationFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CommonMeasurementInitiationFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonMeasurementInitiationFailure-Extensions}}           OPTIONAL,
    ...
```

```
}

CommonMeasurementInitiationFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID               CRITICALITY ignore          TYPE MeasurementID                          PRESENCE mandatory   }|
    { ID id-Cause                       CRITICALITY ignore          TYPE Cause                                  PRESENCE mandatory   }|
    { ID id-CriticalityDiagnostics      CRITICALITY ignore          TYPE CriticalityDiagnostics                 PRESENCE optional },
    ...
}

CommonMeasurementInitiationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON MEASUREMENT REPORT
--
-- **************************************************************

CommonMeasurementReport ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CommonMeasurementReport-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonMeasurementReport-Extensions}}                  OPTIONAL,
    ...
}

CommonMeasurementReport-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                           CRITICALITY ignore      TYPE MeasurementID                          PRESENCE mandatory   }|
    { ID id-CommonMeasurementObjectType-CM-Rprt     CRITICALITY ignore      TYPE CommonMeasurementObjectType-CM-Rprt    PRESENCE mandatory   }|
    { ID id-SFN                                     CRITICALITY ignore      TYPE SFN                                    PRESENCE optional },
    ...
}

CommonMeasurementReport-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MeasurementRecoveryReportingIndicator   CRITICALITY ignore      EXTENSION MeasurementRecoveryReportingIndicator    PRESENCE optional }|
    { ID id-Reference-ReceivedTotalWideBandPower    CRITICALITY ignore      EXTENSION Reference-ReceivedTotalWideBandPower     PRESENCE optional },
    ...
}

CommonMeasurementObjectType-CM-Rprt ::= CHOICE {
    cell                                            Cell-CM-Rprt,
    rACH                                            RACH-CM-Rprt,
    notUsed-cPCH                                    NULL,
    ...,
    extension-CommonMeasurementObjectType-CM-Rprt       Extension-CommonMeasurementObjectType-CM-Rprt
}

Extension-CommonMeasurementObjectType-CM-Rprt ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementObjectType-CM-RprtIE }}

Extension-CommonMeasurementObjectType-CM-RprtIE NBAP-PROTOCOL-IES ::= {
    { ID id-Power-Local-Cell-Group-choice-CM-Rprt   CRITICALITY ignore      TYPE PowerLocalCellGroup-CM-Rprt        PRESENCE mandatory }
}

Cell-CM-Rprt ::= SEQUENCE {
    commonMeasurementValueInformation   CommonMeasurementValueInformation,
```

```
    iE-Extensions                       ProtocolExtensionContainer  {{ CellItem-CM-Rprt-ExtIEs }}                   OPTIONAL,
    ...
}

CellItem-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


RACH-CM-Rprt ::= SEQUENCE {
    commonMeasurementValueInformation   CommonMeasurementValueInformation,
    iE-Extensions                       ProtocolExtensionContainer {{ RACHItem-CM-Rprt-ExtIEs }}                    OPTIONAL,
    ...
}

RACHItem-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerLocalCellGroup-CM-Rprt ::= SEQUENCE {
    commonMeasurementValueInformation   CommonMeasurementValueInformation,
    iE-Extensions                       ProtocolExtensionContainer {{ PowerLocalCellGroup-CM-Rprt-ExtIEs}}       OPTIONAL,
    ...
}

PowerLocalCellGroup-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON MEASUREMENT TERMINATION REQUEST
--
-- **************************************************************

CommonMeasurementTerminationRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CommonMeasurementTerminationRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CommonMeasurementTerminationRequest-Extensions}}      OPTIONAL,
    ...
}

CommonMeasurementTerminationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID           CRITICALITY ignore              TYPE MeasurementID          PRESENCE mandatory },
    ...
}

CommonMeasurementTerminationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON MEASUREMENT FAILURE INDICATION
--
```

```
-- **************************************************************

CommonMeasurementFailureIndication ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container        {{CommonMeasurementFailureIndication-IEs}},
    protocolExtensions          ProtocolExtensionContainer  {{CommonMeasurementFailureIndication-Extensions}}               OPTIONAL,
    ...
}

CommonMeasurementFailureIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID           CRITICALITY ignore          TYPE MeasurementID          PRESENCE mandatory }|
    { ID id-Cause                   CRITICALITY ignore          TYPE Cause                  PRESENCE mandatory },
    ...
}

CommonMeasurementFailureIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL SETUP REQUEST FDD
--
-- **************************************************************

CellSetupRequestFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellSetupRequestFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSetupRequestFDD-Extensions}}      OPTIONAL,
    ...
}

CellSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-ID                                   CRITICALITY reject  TYPE Local-Cell-ID                          PRESENCE mandatory
}|
    { ID id-C-ID                                            CRITICALITY reject  TYPE C-ID                                   PRESENCE mandatory
}|
    { ID id-ConfigurationGenerationID                       CRITICALITY reject  TYPE ConfigurationGenerationID              PRESENCE mandatory
}|
    { ID id-T-Cell                                          CRITICALITY reject  TYPE T-Cell                                 PRESENCE mandatory
}|
    { ID id-UARFCNforNu                                     CRITICALITY reject  TYPE UARFCN                                 PRESENCE mandatory
}|
    { ID id-UARFCNforNd                                     CRITICALITY reject  TYPE UARFCN                                 PRESENCE mandatory
}|
    { ID id-MaximumTransmissionPower                        CRITICALITY reject  TYPE MaximumTransmissionPower               PRESENCE mandatory
}|
    { ID id-Closed-Loop-Timing-Adjustment-Mode              CRITICALITY reject  TYPE Closedlooptimingadjustmentmode         PRESENCE optional }|
    { ID id-PrimaryScramblingCode                           CRITICALITY reject  TYPE PrimaryScramblingCode                  PRESENCE mandatory
}|
    { ID id-Synchronisation-Configuration-Cell-SetupRqst    CRITICALITY reject  TYPE Synchronisation-Configuration-Cell-SetupRqst       PRESENCE
    mandatory }|
    { ID id-DL-TPC-Pattern01Count                           CRITICALITY reject  TYPE DL-TPC-Pattern01Count                  PRESENCE mandatory
}|
    { ID id-PrimarySCH-Information-Cell-SetupRqstFDD        CRITICALITY reject  TYPE PrimarySCH-Information-Cell-SetupRqstFDD           PRESENCE
    mandatory }|
```

```
    { ID id-SecondarySCH-Information-Cell-SetupRqstFDD          CRITICALITY reject  TYPE SecondarySCH-Information-Cell-SetupRqstFDD        PRESENCE
mandatory }|
    { ID id-PrimaryCPICH-Information-Cell-SetupRqstFDD          CRITICALITY reject  TYPE PrimaryCPICH-Information-Cell-SetupRqstFDD        PRESENCE
    mandatory }|
    { ID id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD    CRITICALITY reject  TYPE SecondaryCPICH-InformationList-Cell-SetupRqstFDD  PRESENCE
    optional }|
    { ID id-PrimaryCCPCH-Information-Cell-SetupRqstFDD          CRITICALITY reject  TYPE PrimaryCCPCH-Information-Cell-SetupRqstFDD        PRESENCE
    mandatory }|
    { ID id-Limited-power-increase-information-Cell-SetupRqstFDD    CRITICALITY reject  TYPE Limited-power-increase-information-Cell-SetupRqstFDD
        PRESENCE mandatory },
    ...
}

CellSetupRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-IPDLParameter-Information-Cell-SetupRqstFDD     CRITICALITY reject  EXTENSION IPDLParameter-Information-Cell-SetupRqstFDD
    PRESENCE optional }|
    { ID id-CellPortion-InformationList-Cell-SetupRqstFDD   CRITICALITY reject  EXTENSION CellPortion-InformationList-Cell-SetupRqstFDD
    PRESENCE optional }|
    { ID id-MIMO-PilotConfiguration                         CRITICALITY reject  EXTENSION MIMO-PilotConfiguration        PRESENCE optional },
    ...
}

Synchronisation-Configuration-Cell-SetupRqst ::= SEQUENCE {
    n-INSYNC-IND            N-INSYNC-IND,
    n-OUTSYNC-IND           N-OUTSYNC-IND,
    t-RLFAILURE             T-RLFAILURE,
    iE-Extensions           ProtocolExtensionContainer { { Synchronisation-Configuration-Cell-SetupRqst-ExtIEs} }     OPTIONAL,
    ...
}

Synchronisation-Configuration-Cell-SetupRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimarySCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    primarySCH-Power                        DL-Power,
    tSTD-Indicator                          TSTD-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { PrimarySCH-Information-Cell-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

PrimarySCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SecondarySCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    secondarySCH-Power                      DL-Power,
    tSTD-Indicator                          TSTD-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { SecondarySCH-Information-Cell-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}
```

```
SecondarySCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCPICH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    primaryCPICH-Power                      PrimaryCPICH-Power,
    transmitDiversityIndicator              TransmitDiversityIndicator,
    iE-Extensions                           ProtocolExtensionContainer { { PrimaryCPICH-Information-Cell-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

PrimaryCPICH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SecondaryCPICH-InformationList-Cell-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Single-Container{{ SecondaryCPICH-
InformationItemIE-Cell-SetupRqstFDD }}

SecondaryCPICH-InformationItemIE-Cell-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD        CRITICALITY reject  TYPE SecondaryCPICH-InformationItem-Cell-SetupRqstFDD
    PRESENCE mandatory}
}

SecondaryCPICH-InformationItem-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    dl-ScramblingCode                       DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    secondaryCPICH-Power                    DL-Power,
    transmitDiversityIndicator              TransmitDiversityIndicator,
    iE-Extensions                           ProtocolExtensionContainer { { SecondaryCPICH-InformationItem-Cell-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

SecondaryCPICH-InformationItem-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCCPCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    bCH-information                         BCH-Information-Cell-SetupRqstFDD,
    sTTD-Indicator                          STTD-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { PrimaryCCPCH-Information-Cell-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

PrimaryCCPCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

BCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID                CommonTransportChannelID,
    bCH-Power                               DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { BCH-Information-Cell-SetupRqstFDD-ExtIEs} }   OPTIONAL,
```

```
    ...
 }

BCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Limited-power-increase-information-Cell-SetupRqstFDD ::= SEQUENCE {
    powerRaiseLimit                         PowerRaiseLimit,
    dLPowerAveragingWindowSize              DLPowerAveragingWindowSize,
    iE-Extensions                           ProtocolExtensionContainer { { Limited-power-increase-information-Cell-SetupRqstFDD-ExtIEs} }
    OPTIONAL,
    ...
}

Limited-power-increase-information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDLParameter-Information-Cell-SetupRqstFDD::= SEQUENCE {
    iPDL-FDD-Parameters                     IPDL-FDD-Parameters,
    iPDL-Indicator                          IPDL-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { IPDLParameter-Information-Cell-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

IPDLParameter-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellPortion-InformationList-Cell-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF ProtocolIE-Single-Container{{ CellPortion-
InformationItemIE-Cell-SetupRqstFDD }}

CellPortion-InformationItemIE-Cell-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-CellPortion-InformationItem-Cell-SetupRqstFDD   CRITICALITY reject  TYPE CellPortion-InformationItem-Cell-SetupRqstFDD
    PRESENCE mandatory }
}

CellPortion-InformationItem-Cell-SetupRqstFDD::= SEQUENCE {
    cellPortionID                           CellPortionID,
    associatedSecondaryCPICH                CommonPhysicalChannelID,
    maximumTransmissionPowerforCellPortion  MaximumTransmissionPower,
    iE-Extensions                           ProtocolExtensionContainer { { CellPortion-InformationItem-Cell-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

CellPortion-InformationItem-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

-- **************************************************************
--
-- CELL SETUP REQUEST TDD
--
```

```
-- **************************************************************

CellSetupRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellSetupRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSetupRequestTDD-Extensions}}      OPTIONAL,
    ...
}

CellSetupRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-ID                                   CRITICALITY reject  TYPE Local-Cell-ID                                 PRESENCE mandatory
}|
    { ID id-C-ID                                            CRITICALITY reject  TYPE C-ID                                          PRESENCE mandatory
}|
    { ID id-ConfigurationGenerationID                       CRITICALITY reject  TYPE ConfigurationGenerationID                     PRESENCE mandatory
}|
    { ID id-UARFCNforNt                                     CRITICALITY reject  TYPE UARFCN                                        PRESENCE mandatory
}|  -- For 1.28Mcps TDD, if multiple frequencies exist within the cell indicated by C-ID, this IE indicates the frequency of Primary frequency
    { ID id-CellParameterID                                 CRITICALITY reject  TYPE CellParameterID                               PRESENCE mandatory
}|
    -- For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, this IE indicate the Preamble code used in the Speial Time Slot [19]
    { ID id-MaximumTransmissionPower                        CRITICALITY reject  TYPE MaximumTransmissionPower                      PRESENCE mandatory
}|
    { ID id-TransmissionDiversityApplied                    CRITICALITY reject  TYPE TransmissionDiversityApplied                  PRESENCE mandatory
}|
    { ID id-SyncCase                                        CRITICALITY reject  TYPE SyncCase                                      PRESENCE mandatory
}|
    { ID id-Synchronisation-Configuration-Cell-SetupRqst    CRITICALITY reject  TYPE Synchronisation-Configuration-Cell-SetupRqst PRESENCE
mandatory }|
    { ID id-DPCHConstant                                    CRITICALITY reject  TYPE ConstantValue                                 PRESENCE mandatory
}|  -- This IE shall be ignored by the Node B.
    { ID id-PUSCHConstant                                   CRITICALITY reject  TYPE ConstantValue                                 PRESENCE mandatory
}|  -- This IE shall be ignored by the Node B.
    { ID id-PRACHConstant                                   CRITICALITY reject  TYPE ConstantValue                                 PRESENCE mandatory
}|  -- This IE shall be ignored by the Node B.
    { ID id-TimingAdvanceApplied                            CRITICALITY reject  TYPE TimingAdvanceApplied                          PRESENCE mandatory
}|
    { ID id-SCH-Information-Cell-SetupRqstTDD               CRITICALITY reject  TYPE SCH-Information-Cell-SetupRqstTDD         PRESENCE optional }|
    -- Mandatory for 3.84Mcps TDD and 7.68Mcps TDD, Not Applicable to 1.28Mcps TDD
    { ID id-PCCPCH-Information-Cell-SetupRqstTDD             CRITICALITY reject  TYPE PCCPCH-Information-Cell-SetupRqstTDD      PRESENCE optional }|
    -- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD
    { ID id-TimeSlotConfigurationList-Cell-SetupRqstTDD     CRITICALITY reject  TYPE TimeSlotConfigurationList-Cell-SetupRqstTDD  PRESENCE optional
},  -- Mandatory for 3.84Mcps TDD and 7.68Mcps TDD, Not Applicable to 1.28Mcps TDD
    ...
}

CellSetupRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD     CRITICALITY reject  EXTENSION TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD
    PRESENCE optional }|    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD. If multiple frequencies exist within the
cell indicated by C-ID, this IE indicates the Time Slot configuration of Primary frequency.
    { ID id-PCCPCH-LCR-Information-Cell-SetupRqstTDD            CRITICALITY reject  EXTENSION PCCPCH-LCR-Information-Cell-SetupRqstTDD
    PRESENCE optional }|    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD, For 1.28 Mcps TDD, if the cell is
operating in MBSFN only mode, PCCPCH is deployed on the MBSFN Special Time Slot [19].
    { ID id-DwPCH-LCR-Information-Cell-SetupRqstTDD             CRITICALITY reject  EXTENSION DwPCH-LCR-Information-Cell-SetupRqstTDD
    PRESENCE optional }|    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
```

```
    { ID id-ReferenceSFNoffset                                  CRITICALITY ignore  EXTENSION ReferenceSFNoffset
    PRESENCE optional }|
    { ID id-IPDLParameter-Information-Cell-SetupRqstTDD         CRITICALITY reject  EXTENSION IPDLParameter-Information-Cell-SetupRqstTDD
    PRESENCE optional }|    -- Applicable to 3.84Mcps TDD and 7.68Mcps TDD only
    { ID id-IPDLParameter-Information-LCR-Cell-SetupRqstTDD     CRITICALITY reject  EXTENSION IPDLParameter-Information-LCR-Cell-SetupRqstTDD
    PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
    { ID id-PCCPCH-768-Information-Cell-SetupRqstTDD            CRITICALITY reject  EXTENSION PCCPCH-768-Information-Cell-SetupRqstTDD
    PRESENCE optional }|    -- Mandatory for 7.68Mcps TDD, Not Applicable to 3.84Mcps TDD or 1.28Mcps TDD
    { ID id-SCH-768-Information-Cell-SetupRqstTDD               CRITICALITY reject  EXTENSION SCH-768-Information-Cell-SetupRqstTDD
    PRESENCE optional }|    -- Mandatory for 7.68Mcps TDD, Not Applicable to 3.84Mcps TDD or 1.28Mcps TDD
    { ID id-MBSFN-Only-Mode-Indicator-Cell-SetupRqstTDD-LCR     CRITICALITY reject  EXTENSION MBSFN-Only-Mode-Indicator
    PRESENCE optional }|
    { ID id-Cell-Frequency-List-LCR-MulFreq-Cell-SetupRqstTDD   CRITICALITY reject  EXTENSION Cell-Frequency-List-LCR-MulFreq-Cell-SetupRqstTDD
    PRESENCE optional },  -- Mandatory for 1.28Mcps TDD when using multiple frequencies
    ...
}

SCH-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    syncCaseIndicator                       SyncCaseIndicator-Cell-SetupRqstTDD-PSCH,
    sCH-Power                               DL-Power,
    tSTD-Indicator                          TSTD-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { SCH-Information-Cell-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

SCH-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SyncCaseIndicator-Cell-SetupRqstTDD-PSCH ::= ProtocolIE-Single-Container {{ SyncCaseIndicatorIE-Cell-SetupRqstTDD-PSCH }}

SyncCaseIndicatorIE-Cell-SetupRqstTDD-PSCH NBAP-PROTOCOL-IES ::= {
    { ID id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH   CRITICALITY reject   TYPE SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH    PRESENCE
mandatory }
}

SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH ::= CHOICE {
    case1                               Case1-Cell-SetupRqstTDD,
    case2                               Case2-Cell-SetupRqstTDD,
    ...
}

Case1-Cell-SetupRqstTDD ::= SEQUENCE {
    timeSlot                            TimeSlot,
    iE-Extensions                       ProtocolExtensionContainer { { Case1Item-Cell-SetupRqstTDD-ExtIEs} }          OPTIONAL,
    ...
}

Case1Item-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Case2-Cell-SetupRqstTDD ::= SEQUENCE {
```

```
    sCH-TimeSlot                        SCH-TimeSlot,
    iE-Extensions                       ProtocolExtensionContainer { { Case2Item-Cell-SetupRqstTDD-ExtIEs} }          OPTIONAL,
    ...
}

Case2Item-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PCCPCH-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    pCCPCH-Power                            PCCPCH-Power,
    sCTD-Indicator                          SCTD-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { PCCPCH-Information-Cell-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

PCCPCH-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TimeSlotConfigurationList-Cell-SetupRqstTDD ::= SEQUENCE (SIZE (1..15)) OF TimeSlotConfigurationItem-Cell-SetupRqstTDD

TimeSlotConfigurationItem-Cell-SetupRqstTDD ::= SEQUENCE {
    timeSlot                                TimeSlot,
    timeSlotStatus                          TimeSlotStatus,
    timeSlotDirection                       TimeSlotDirection,
    iE-Extensions                           ProtocolExtensionContainer { { TimeSlotConfigurationItem-Cell-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

TimeSlotConfigurationItem-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MBSFN-Cell-ParameterID-Cell-SetupRqstTDD           CRITICALITY reject  EXTENSION CellParameterID         PRESENCE optional },--
Applicable only to for MBSFN only mode
    ...
}

TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD ::= SEQUENCE (SIZE (1..7)) OF TimeSlotConfigurationItem-LCR-Cell-SetupRqstTDD

TimeSlotConfigurationItem-LCR-Cell-SetupRqstTDD ::= SEQUENCE {
    timeSlotLCR                             TimeSlotLCR,
    timeSlotStatus                          TimeSlotStatus,
    timeSlotDirection                       TimeSlotDirection,
    iE-Extensions                           ProtocolExtensionContainer { { TimeSlotConfigurationItem-LCR-Cell-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

TimeSlotConfigurationItem-LCR-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Time-Slot-Parameter-ID                          CRITICALITY reject          EXTENSION CellParameterID           PRESENCE optional },
    ...
}
```

```
PCCPCH-LCR-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    pCCPCH-Power                            PCCPCH-Power,
    sCTD-Indicator                          SCTD-Indicator,
    tSTD-Indicator                          TSTD-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { PCCPCH-LCR-Information-Cell-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

PCCPCH-LCR-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DwPCH-LCR-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelId         CommonPhysicalChannelID,
    tSTD-Indicator                  TSTD-Indicator,
    dwPCH-Power                     DwPCH-Power,
    iE-Extensions                   ProtocolExtensionContainer { { DwPCH-LCR-Information-Cell-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

DwPCH-LCR-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDLParameter-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    iPDL-TDD-Parameters                     IPDL-TDD-Parameters,
    iPDL-Indicator                          IPDL-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { IPDLParameter-Information-Cell-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

IPDLParameter-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDLParameter-Information-LCR-Cell-SetupRqstTDD ::= SEQUENCE {
    iPDL-TDD-Parameters-LCR                 IPDL-TDD-Parameters-LCR,
    iPDL-Indicator                          IPDL-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { IPDLParameter-Information-LCR-Cell-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

IPDLParameter-Information-LCR-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PCCPCH-768-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID768              CommonPhysicalChannelID768,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
```

```
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    pCCPCH-Power                            PCCPCH-Power,
    sCTD-Indicator                          SCTD-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { PCCPCH-768-Information-Cell-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

PCCPCH-768-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SCH-768-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID768              CommonPhysicalChannelID768,
    syncCaseIndicator                       SyncCaseIndicator-Cell-SetupRqstTDD-PSCH,
    sCH-Power                               DL-Power,
    tSTD-Indicator                          TSTD-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { SCH-768-Information-Cell-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

SCH-768-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Cell-Frequency-List-LCR-MulFreq-Cell-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxFrequencyinCell-1)) OF Cell-Frequency-Item-LCR-MulFreq-Cell-
SetupRqstTDD

Cell-Frequency-Item-LCR-MulFreq-Cell-SetupRqstTDD ::= SEQUENCE {
    uARFCN                                                  UARFCN,
    -- This IE indicates the frequency of  Secondary frequency
    timeSlotConfigurationList-LCR-Cell-SetupRqstTDD         TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD,
    -- This IE indicates the Time Slot configuration of Secondary frequency
    iE-Extensions                           ProtocolExtensionContainer { { Cell-Frequency-Item-LCR-MulFreq-Cell-SetupRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

Cell-Frequency-Item-LCR-MulFreq-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL SETUP RESPONSE
--
-- **************************************************************

CellSetupResponse ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container        {{CellSetupResponse-IEs}},
    protocolExtensions          ProtocolExtensionContainer  {{CellSetupResponse-Extensions}}                    OPTIONAL,
    ...
}
```

```
CellSetupResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CriticalityDiagnostics      CRITICALITY ignore          TYPE CriticalityDiagnostics                    PRESENCE optional },
    ...
}

CellSetupResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL SETUP FAILURE
--
-- **************************************************************

CellSetupFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellSetupFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSetupFailure-Extensions}}         OPTIONAL,
    ...
}

CellSetupFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Cause                           CRITICALITY ignore          TYPE Cause                                  PRESENCE mandatory   }|
    { ID id-CriticalityDiagnostics          CRITICALITY ignore          TYPE CriticalityDiagnostics                 PRESENCE optional },
    ...
}

CellSetupFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL RECONFIGURATION REQUEST FDD
--
-- **************************************************************

CellReconfigurationRequestFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellReconfigurationRequestFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellReconfigurationRequestFDD-Extensions}}                 OPTIONAL,
    ...
}

CellReconfigurationRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                                             CRITICALITY reject  TYPE C-ID
    PRESENCE mandatory }|
    { ID    id-ConfigurationGenerationID                        CRITICALITY reject  TYPE ConfigurationGenerationID
    PRESENCE mandatory }|
    { ID    id-MaximumTransmissionPower                         CRITICALITY reject  TYPE MaximumTransmissionPower
    PRESENCE optional }|
    { ID    id-Synchronisation-Configuration-Cell-ReconfRqst    CRITICALITY reject  TYPE Synchronisation-Configuration-Cell-ReconfRqst
    PRESENCE optional }|
    { ID    id-PrimarySCH-Information-Cell-ReconfRqstFDD        CRITICALITY reject  TYPE PrimarySCH-Information-Cell-ReconfRqstFDD
    PRESENCE optional }|
```

```
    { ID    id-SecondarySCH-Information-Cell-ReconfRqstFDD          CRITICALITY reject  TYPE SecondarySCH-Information-Cell-ReconfRqstFDD
    PRESENCE optional }|
    { ID    id-PrimaryCPICH-Information-Cell-ReconfRqstFDD          CRITICALITY reject  TYPE PrimaryCPICH-Information-Cell-ReconfRqstFDD
    PRESENCE optional }|
    { ID    id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD    CRITICALITY reject  TYPE SecondaryCPICH-InformationList-Cell-ReconfRqstFDD
    PRESENCE optional }|
    { ID    id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD          CRITICALITY reject  TYPE PrimaryCCPCH-Information-Cell-ReconfRqstFDD
    PRESENCE optional },
    ...
}

CellReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-IPDLParameter-Information-Cell-ReconfRqstFDD CRITICALITY reject  EXTENSION IPDLParameter-Information-Cell-ReconfRqstFDD
    PRESENCE optional }|
    { ID id-CellPortion-InformationList-Cell-ReconfRqstFDD  CRITICALITY reject  EXTENSION CellPortion-InformationList-Cell-ReconfRqstFDD
    PRESENCE optional }|
    { ID id-MIMO-PilotConfiguration                         CRITICALITY reject  EXTENSION MIMO-PilotConfiguration
    PRESENCE optional },
    ...
}

Synchronisation-Configuration-Cell-ReconfRqst ::= SEQUENCE {
    n-INSYNC-IND            N-INSYNC-IND,
    n-OUTSYNC-IND           N-OUTSYNC-IND,
    t-RLFAILURE             T-RLFAILURE,
    iE-Extensions           ProtocolExtensionContainer { { Synchronisation-Configuration-Cell-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

Synchronisation-Configuration-Cell-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimarySCH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    primarySCH-Power                        DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { PrimarySCH-Information-Cell-ReconfRqstFDD-ExtIEs} }    OPTIONAL,
    ...
 }

PrimarySCH-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SecondarySCH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    secondarySCH-Power                      DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { SecondarySCH-Information-Cell-ReconfRqstFDD-ExtIEs} }     OPTIONAL,
    ...
 }

SecondarySCH-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
PrimaryCPICH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    primaryCPICH-Power                      PrimaryCPICH-Power,
    iE-Extensions                           ProtocolExtensionContainer { { PrimaryCPICH-Information-Cell-ReconfRqstFDD-ExtIEs} }     OPTIONAL,
    ...
 }

PrimaryCPICH-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SecondaryCPICH-InformationList-Cell-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Single-Container{{ SecondaryCPICH-
InformationItemIE-Cell-ReconfRqstFDD }}

SecondaryCPICH-InformationItemIE-Cell-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD    CRITICALITY reject  TYPE    SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD
        PRESENCE mandatory }
}

SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    secondaryCPICH-Power                    DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD-ExtIEs} }
    OPTIONAL,
    ...
 }

SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCCPCH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
    bCH-information                         BCH-information-Cell-ReconfRqstFDD,
    iE-Extensions                           ProtocolExtensionContainer { { PrimaryCCPCH-Information-Cell-ReconfRqstFDD-ExtIEs} }     OPTIONAL,
    ...
 }

PrimaryCCPCH-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

BCH-information-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonTransportChannelID                CommonTransportChannelID,
    bCH-Power                               DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { BCH-information-Cell-ReconfRqstFDD-ExtIEs} }     OPTIONAL,
    ...
 }

BCH-information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDLParameter-Information-Cell-ReconfRqstFDD::= SEQUENCE {
```

```
    iPDL-FDD-Parameters                         IPDL-FDD-Parameters     OPTIONAL,
    iPDL-Indicator                              IPDL-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { IPDLParameter-Information-Cell-ReconfRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

IPDLParameter-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellPortion-InformationList-Cell-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF ProtocolIE-Single-Container{{ CellPortion-
InformationItemIE-Cell-ReconfRqstFDD }}

CellPortion-InformationItemIE-Cell-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-CellPortion-InformationItem-Cell-ReconfRqstFDD  CRITICALITY reject  TYPE CellPortion-InformationItem-Cell-ReconfRqstFDD
    PRESENCE    mandatory}
}

CellPortion-InformationItem-Cell-ReconfRqstFDD::= SEQUENCE {
    cellPortionID                           CellPortionID,
    maximumTransmissionPowerforCellPortion  MaximumTransmissionPower,
    iE-Extensions                           ProtocolExtensionContainer { { CellPortion-InformationItem-Cell-ReconfRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

CellPortion-InformationItem-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

-- **************************************************************
--
-- CELL RECONFIGURATION REQUEST TDD
--
-- **************************************************************

CellReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellReconfigurationRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellReconfigurationRequestTDD-Extensions}}                 OPTIONAL,
    ...
}

CellReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                                        CRITICALITY reject  TYPE C-ID                                       PRESENCE mandatory }|
    { ID id-ConfigurationGenerationID                   CRITICALITY reject  TYPE ConfigurationGenerationID                  PRESENCE mandatory }|
    { ID id-Synchronisation-Configuration-Cell-ReconfRqst   CRITICALITY reject  TYPE Synchronisation-Configuration-Cell-ReconfRqst   PRESENCE
optional }|
    { ID id-TimingAdvanceApplied                        CRITICALITY reject  TYPE TimingAdvanceApplied                       PRESENCE optional }|
    { ID id-SCH-Information-Cell-ReconfRqstTDD          CRITICALITY reject  TYPE SCH-Information-Cell-ReconfRqstTDD     PRESENCE optional }|
    -- Applicable to 3.84Mcps TDD only
    { ID id-PCCPCH-Information-Cell-ReconfRqstTDD       CRITICALITY reject  TYPE PCCPCH-Information-Cell-ReconfRqstTDD  PRESENCE optional }|
    -- Not applicable to 7.68Mcps TDD only. For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, PCCPCH is deployed on the MBSFN Special
Time Slot [19].
    { ID id-MaximumTransmissionPower                    CRITICALITY reject  TYPE MaximumTransmissionPower               PRESENCE optional }|
    { ID id-DPCHConstant                                CRITICALITY reject  TYPE ConstantValue                          PRESENCE optional }|
```

```
    -- This IE shall be ignored by the Node B.
    { ID id-PUSCHConstant                                   CRITICALITY reject  TYPE ConstantValue                          PRESENCE optional }|
    -- This IE shall be ignored by the Node B.
    { ID id-PRACHConstant                                   CRITICALITY reject  TYPE ConstantValue                          PRESENCE optional }|
    -- This IE shall be ignored by the Node B.
    { ID id-TimeSlotConfigurationList-Cell-ReconfRqstTDD    CRITICALITY reject  TYPE TimeSlotConfigurationList-Cell-ReconfRqstTDD    PRESENCE
optional },
    -- Mandatory for 3.84Mcps TDD and 7.68Mcps TDD only. Not Applicable to 1.28Mcps TDD.
    ...
}

CellReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD CRITICALITY reject  EXTENSION TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD
    PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only, If multiple frequencies exist within the cell indicated by C-ID, this IE indicates
the Time Slot reconfiguration of Primary frequency
    { ID    id-DwPCH-LCR-Information-Cell-ReconfRqstTDD         CRITICALITY reject  EXTENSION DwPCH-LCR-Information-Cell-ReconfRqstTDD
    PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
    { ID    id-IPDLParameter-Information-Cell-ReconfRqstTDD     CRITICALITY reject  EXTENSION IPDLParameter-Information-Cell-ReconfRqstTDD
    PRESENCE optional }|    -- Applicable to 3.84Mcps TDD and 7.68Mcps TDD only
    { ID    id-IPDLParameter-Information-LCR-Cell-ReconfRqstTDD CRITICALITY reject  EXTENSION IPDLParameter-Information-LCR-Cell-ReconfRqstTDD
    PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
    { ID id-SCH-768-Information-Cell-ReconfRqstTDD              CRITICALITY reject  EXTENSION SCH-768-Information-Cell-ReconfRqstTDD
    PRESENCE optional }|    -- Applicable to 7.68Mcps TDD only
    { ID id-PCCPCH-768-Information-Cell-ReconfRqstTDD           CRITICALITY reject  EXTENSION PCCPCH-768-Information-Cell-ReconfRqstTDD
    PRESENCE optional }|    -- Applicable to 7.68Mcps TDD only
    { ID id-UARFCN-Adjustment                                   CRITICALITY reject  EXTENSION UARFCN-Adjustment
    PRESENCE optional },    -- Applicable to 1.28Mcps TDD when using multiple frequencies
    ...
}

SCH-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    sCH-Power                               DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { PSCH-Information-Cell-ReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

PSCH-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PCCPCH-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    pCCPCH-Power                            PCCPCH-Power,
    iE-Extensions                           ProtocolExtensionContainer { { PCCPCH-Information-Cell-ReconfRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

PCCPCH-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TimeSlotConfigurationList-Cell-ReconfRqstTDD ::= SEQUENCE (SIZE (1..15)) OF TimeSlotConfigurationItem-Cell-ReconfRqstTDD
```

```
TimeSlotConfigurationItem-Cell-ReconfRqstTDD ::= SEQUENCE {
    timeSlot                                TimeSlot,
    timeSlotStatus                          TimeSlotStatus,
    timeSlotDirection                       TimeSlotDirection,
    iE-Extensions                           ProtocolExtensionContainer { { TimeSlotConfigurationItem-Cell-ReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
 }

TimeSlotConfigurationItem-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MBSFN-Cell-ParameterID-Cell-ReconfRqstTDD          CRITICALITY reject  EXTENSION   CellParameterID       PRESENCE optional },
    ...
}

TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD ::= SEQUENCE (SIZE (1..7)) OF TimeSlotConfigurationItem-LCR-Cell-ReconfRqstTDD

TimeSlotConfigurationItem-LCR-Cell-ReconfRqstTDD ::= SEQUENCE {
    timeSlotLCR                             TimeSlotLCR,
    timeSlotStatus                          TimeSlotStatus,
    timeSlotDirection                       TimeSlotDirection,
    iE-Extensions                           ProtocolExtensionContainer { { TimeSlotConfigurationItem-LCR-Cell-ReconfRqstTDD-ExtIEs} }   OPTIONAL,
    ...
 }

TimeSlotConfigurationItem-LCR-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DwPCH-LCR-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelId                 CommonPhysicalChannelID,
    dwPCH-Power                             DwPCH-Power,
    iE-Extensions                           ProtocolExtensionContainer { { DwPCH-LCR-Information-Cell-ReconfRqstTDD-ExtIEs} }     OPTIONAL,
    ...
 }

DwPCH-LCR-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDLParameter-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
    iPDL-TDD-Parameters                     IPDL-TDD-Parameters     OPTIONAL,
    iPDL-Indicator                          IPDL-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { IPDLParameter-Information-Cell-ReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

IPDLParameter-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDLParameter-Information-LCR-Cell-ReconfRqstTDD ::= SEQUENCE {
    iPDL-TDD-Parameters-LCR                 IPDL-TDD-Parameters-LCR     OPTIONAL,
    iPDL-Indicator                          IPDL-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { IPDLParameter-Information-LCR-Cell-ReconfRqstTDD-ExtIEs} }   OPTIONAL,
    ...
```

```
}

IPDLParameter-Information-LCR-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SCH-768-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID768              CommonPhysicalChannelID768,
    sCH-Power                               DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { PSCH-768-Information-Cell-ReconfRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

PSCH-768-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PCCPCH-768-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID768              CommonPhysicalChannelID768,
    pCCPCH-Power                            PCCPCH-Power,
    iE-Extensions                           ProtocolExtensionContainer { { PCCPCH-768-Information-Cell-ReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

PCCPCH-768-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UARFCN-Adjustment::= CHOICE {
    cell-Frequency-Add-LCR-MulFreq-Cell-ReconfRqstTDD              Cell-Frequency-Add-LCR-MulFreq-Cell-ReconfRqstTDD,
    cell-Frequency-ModifyList-LCR-MulFreq-Cell-ReconfRqstTDD       Cell-Frequency-ModifyList-LCR-MulFreq-Cell-ReconfRqstTDD,
    cell-Frequency-Delete-LCR-MulFreq-Cell-ReconfRqstTDD           Cell-Frequency-Delete-LCR-MulFreq-Cell-ReconfRqstTDD,
    ...
}

Cell-Frequency-Add-LCR-MulFreq-Cell-ReconfRqstTDD ::= SEQUENCE {
    uARFCN                                                  UARFCN,
    -- This IE indicates the frequency of  Secondary frequency to add
    timeSlotConfigurationList-LCR-Cell-ReconfRqstTDD        TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD,
    -- This IE indicates the Time Slot configuration of Secondary frequency to add
    iE-Extensions                           ProtocolExtensionContainer { { Cell-Frequency-Add-LCR-MulFreq-Cell-ReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

Cell-Frequency-Add-LCR-MulFreq-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Cell-Frequency-ModifyList-LCR-MulFreq-Cell-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxFrequencyinCell-1)) OF Cell-Frequency-ModifyItem-LCR-MulFreq-
Cell-ReconfRqstTDD

Cell-Frequency-ModifyItem-LCR-MulFreq-Cell-ReconfRqstTDD ::= SEQUENCE {
    uARFCN                                                  UARFCN,
```

```
    -- This IE indicates the frequency of  Secondary frequency to modify
    timeSlotConfigurationList-LCR-Cell-ReconfRqstTDD        TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD,
    -- This IE indicates the Time Slot reconfiguration of Secondary frequency
    iE-Extensions                          ProtocolExtensionContainer { { Cell-Frequency-ModifyItem-LCR-MulFreq-Cell-ReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

Cell-Frequency-ModifyItem-LCR-MulFreq-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Cell-Frequency-Delete-LCR-MulFreq-Cell-ReconfRqstTDD ::= SEQUENCE {
    uARFCN                                              UARFCN,
    -- This IE indicates the frequency of  Secondary  Frequency to delete
    iE-Extensions                          ProtocolExtensionContainer { { Cell-Frequency-Delete-LCR-MulFreq-Cell-ReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

Cell-Frequency-Delete-LCR-MulFreq-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL RECONFIGURATION RESPONSE
--
-- **************************************************************

CellReconfigurationResponse ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container        {{CellReconfigurationResponse-IEs}},
    protocolExtensions          ProtocolExtensionContainer  {{CellReconfigurationResponse-Extensions}}                OPTIONAL,
    ...
}

CellReconfigurationResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CriticalityDiagnostics      CRITICALITY ignore          TYPE CriticalityDiagnostics                     PRESENCE optional },
    ...
}

CellReconfigurationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL RECONFIGURATION FAILURE
--
-- **************************************************************

CellReconfigurationFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellReconfigurationFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellReconfigurationFailure-Extensions}}                   OPTIONAL,
```

```
    ...
}

CellReconfigurationFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Cause                       CRITICALITY ignore          TYPE Cause                                  PRESENCE mandatory   }|
    { ID id-CriticalityDiagnostics      CRITICALITY ignore          TYPE CriticalityDiagnostics                 PRESENCE optional },
    ...
}

CellReconfigurationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL DELETION REQUEST
--
-- **************************************************************

CellDeletionRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellDeletionRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellDeletionRequest-Extensions}}      OPTIONAL,
    ...
}

CellDeletionRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID            CRITICALITY reject          TYPE C-ID       PRESENCE mandatory },
    ...
}

CellDeletionRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL DELETION RESPONSE
--
-- **************************************************************

CellDeletionResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellDeletionResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellDeletionResponse-Extensions}}     OPTIONAL,
    ...
}

CellDeletionResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CriticalityDiagnostics      CRITICALITY ignore          TYPE CriticalityDiagnostics                 PRESENCE optional },
    ...
}

CellDeletionResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
-- **************************************************************
--
-- RESOURCE STATUS INDICATION
--
-- **************************************************************

ResourceStatusIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{ResourceStatusIndication-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{ResourceStatusIndication-Extensions}}                    OPTIONAL,
    ...
}

ResourceStatusIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-IndicationType-ResourceStatusInd    CRITICALITY ignore  TYPE IndicationType-ResourceStatusInd            PRESENCE mandatory }|
    { ID id-Cause                               CRITICALITY ignore  TYPE Cause                                      PRESENCE optional },
    ...
}

ResourceStatusIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IndicationType-ResourceStatusInd ::= CHOICE {
    no-Failure                          No-Failure-ResourceStatusInd,
    serviceImpacting                    ServiceImpacting-ResourceStatusInd,
    ...
}

No-Failure-ResourceStatusInd ::= SEQUENCE {
    local-Cell-InformationList              Local-Cell-InformationList-ResourceStatusInd,
    local-Cell-Group-InformationList        Local-Cell-Group-InformationList-ResourceStatusInd  OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { No-FailureItem-ResourceStatusInd-ExtIEs} } OPTIONAL,
    ...
}

No-FailureItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-Power-Local-Cell-Group-InformationList-ResourceStatusInd     CRITICALITY     ignore                      EXTENSION   Power-Local-
Cell-Group-InformationList-ResourceStatusInd        PRESENCE    optional    },
    ...
}

Local-Cell-InformationList-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-
InformationItemIE-ResourceStatusInd }}

Local-Cell-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-InformationItem-ResourceStatusInd   CRITICALITY ignore   TYPE Local-Cell-InformationItem-ResourceStatusInd    PRESENCE
mandatory }
}

Local-Cell-InformationItem-ResourceStatusInd ::= SEQUENCE {
    local-CellID                        Local-Cell-ID,
    addorDeleteIndicator                AddorDeleteIndicator,
    dl-or-global-capacityCredit         DL-or-Global-CapacityCredit         OPTIONAL,
```

```
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add'
    ul-capacityCredit                       UL-CapacityCredit                       OPTIONAL,
    commonChannelsCapacityConsumptionLaw    CommonChannelsCapacityConsumptionLaw    OPTIONAL,
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add'
    dedicatedChannelsCapacityConsumptionLaw DedicatedChannelsCapacityConsumptionLaw OPTIONAL,
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add'
    maximumDL-PowerCapability               MaximumDL-PowerCapability               OPTIONAL,
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add'
    minSpreadingFactor                      MinSpreadingFactor                      OPTIONAL,
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add'
    minimumDL-PowerCapability               MinimumDL-PowerCapability               OPTIONAL,
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add'
    local-Cell-Group-ID                     Local-Cell-ID                           OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { Local-Cell-InformationItem-ResourceStatusInd-ExtIEs} }OPTIONAL,
    ...
}

Local-Cell-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-ReferenceClockAvailability       CRITICALITY ignore      EXTENSION ReferenceClockAvailability            PRESENCE optional }|
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add' and the Local Cell is related to a TDD cell
    { ID    id-Power-Local-Cell-Group-ID        CRITICALITY ignore      EXTENSION Local-Cell-ID                         PRESENCE optional }|
    { ID    id-HSDPA-Capability                 CRITICALITY ignore      EXTENSION HSDPA-Capability                      PRESENCE optional }|
    { ID    id-E-DCH-Capability                 CRITICALITY ignore      EXTENSION E-DCH-Capability                      PRESENCE optional }|
    { ID    id-E-DCH-TTI2ms-Capability          CRITICALITY ignore      EXTENSION E-DCH-TTI2ms-Capability               PRESENCE conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to 'E-DCH Capable'.
    { ID    id-E-DCH-SF-Capability              CRITICALITY ignore      EXTENSION E-DCH-SF-Capability                   PRESENCE conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to 'E-DCH Capable'.
    { ID    id-E-DCH-HARQ-Combining-Capability              CRITICALITY ignore          EXTENSION E-DCH-HARQ-Combining-Capability       PRESENCE
    conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to 'E-DCH Capable'.
    { ID    id-E-DCH-CapacityConsumptionLaw     CRITICALITY ignore      EXTENSION E-DCHCapacityConsumptionLaw         PRESENCE optional }|
    { ID    id-F-DPCH-Capability                CRITICALITY ignore      EXTENSION F-DPCH-Capability                   PRESENCE optional }|
    { ID    id-E-DCH-TDD-CapacityConsumptionLaw     CRITICALITY ignore      EXTENSION E-DCH-TDD-CapacityConsumptionLaw   PRESENCE optional }|
    { ID    id-ContinuousPacketConnectivityDTX-DRX-Capability           CRITICALITY ignore                          EXTENSION
ContinuousPacketConnectivityDTX-DRX-Capability          PRESENCE    optional }|
    { ID    id-Max-UE-DTX-Cycle                 CRITICALITY ignore      EXTENSION Max-UE-DTX-Cycle                    PRESENCE conditional }|
    -- The IE shall be present if Continuous Packet Connectivity DTX-DRX Capability IE is present and set to 'Continuous Packet Connectivity DTX-
DRX Capable'.
    { ID    id-ContinuousPacketConnectivityHS-SCCH-less-Capability      CRITICALITY ignore                          EXTENSION
ContinuousPacketConnectivityHS-SCCH-less-Capability         PRESENCE    optional }|
    { ID    id-MIMO-Capability                  CRITICALITY ignore      EXTENSION MIMO-Capability                     PRESENCE optional }|
    { ID    id-SixtyfourQAM-DL-Capability       CRITICALITY ignore      EXTENSION SixtyfourQAM-DL-Capability          PRESENCE optional }|
    { ID    id-MBMS-Capability                  CRITICALITY ignore      EXTENSION MBMS-Capability                     PRESENCE optional }|
    { ID    id-Enhanced-FACH-Capability         CRITICALITY ignore      EXTENSION Enhanced-FACH-Capability            PRESENCE optional }|
    { ID    id-Enhanced-PCH-Capability          CRITICALITY ignore      EXTENSION Enhanced-PCH-Capability             PRESENCE conditional }|
    -- The IE shall be present if Enhanced FACH Capability IE is set to 'Enhanced FACH Capable'.
    { ID    id-SixteenQAM-UL-Capability         CRITICALITY ignore      EXTENSION SixteenQAM-UL-Capability            PRESENCE optional }|
    { ID    id-HSDSCH-MACdPDU-SizeCapability    CRITICALITY ignore      EXTENSION HSDSCH-MACdPDU-SizeCapability       PRESENCE optional }|
    { ID    id-MBSFN-Only-Mode-Capability       CRITICALITY ignore      EXTENSION MBSFN-Only-Mode-Capability          PRESENCE optional }|
    { ID    id-F-DPCH-SlotFormatCapability      CRITICALITY ignore      EXTENSION F-DPCH-SlotFormatCapability         PRESENCE optional },
    ...
}
```

```
Local-Cell-Group-InformationList-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-Group-
InformationItemIE-ResourceStatusInd }}

Local-Cell-Group-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-Group-InformationItem-ResourceStatusInd   CRITICALITY ignore TYPE Local-Cell-Group-InformationItem-ResourceStatusInd
    PRESENCE mandatory }
}

Local-Cell-Group-InformationItem-ResourceStatusInd::= SEQUENCE {
    local-Cell-Group-ID                         Local-Cell-ID,
    dl-or-global-capacityCredit                 DL-or-Global-CapacityCredit,
    ul-capacityCredit                           UL-CapacityCredit       OPTIONAL,
    commonChannelsCapacityConsumptionLaw        CommonChannelsCapacityConsumptionLaw,
    dedicatedChannelsCapacityConsumptionLaw     DedicatedChannelsCapacityConsumptionLaw,
    iE-Extensions                               ProtocolExtensionContainer { { Local-Cell-Group-InformationItem-ResourceStatusInd-ExtIEs} }
    OPTIONAL,
    ...
}

Local-Cell-Group-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-CapacityConsumptionLaw        CRITICALITY ignore      EXTENSION E-DCHCapacityConsumptionLaw         PRESENCE optional }|
    { ID id-E-DCH-TDD-CapacityConsumptionLaw    CRITICALITY ignore      EXTENSION E-DCH-TDD-CapacityConsumptionLaw    PRESENCE optional },
    ...
}

Power-Local-Cell-Group-InformationList-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Power-Local-
Cell-Group-InformationItemIE-ResourceStatusInd }}

Power-Local-Cell-Group-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-Power-Local-Cell-Group-InformationItem-ResourceStatusInd    CRITICALITY ignore  TYPE Power-Local-Cell-Group-InformationItem-
ResourceStatusInd       PRESENCE mandatory  }
}

Power-Local-Cell-Group-InformationItem-ResourceStatusInd::= SEQUENCE {
    power-Local-Cell-Group-ID                   Local-Cell-ID,
    maximumDL-PowerCapability                   MaximumDL-PowerCapability,
    iE-Extensions                               ProtocolExtensionContainer { { Power-Local-Cell-Group-InformationItem-ResourceStatusInd-ExtIEs} }
    OPTIONAL,
    ...
}

Power-Local-Cell-Group-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ServiceImpacting-ResourceStatusInd ::= SEQUENCE {
    local-Cell-InformationList              Local-Cell-InformationList2-ResourceStatusInd   OPTIONAL,
    local-Cell-Group-InformationList        Local-Cell-Group-InformationList2-ResourceStatusInd OPTIONAL,
    cCP-InformationList                     CCP-InformationList-ResourceStatusInd           OPTIONAL,
    cell-InformationList                    Cell-InformationList-ResourceStatusInd          OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { ServiceImpactingItem-ResourceStatusInd-ExtIEs} }    OPTIONAL,
    ...
}
```

```
ServiceImpactingItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Power-Local-Cell-Group-InformationList2-ResourceStatusInd       CRITICALITY ignore  EXTENSION Power-Local-Cell-Group-InformationList2-
ResourceStatusInd       PRESENCE optional   },
    ...
}

Local-Cell-InformationList2-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-
InformationItemIE2-ResourceStatusInd }}

Local-Cell-InformationItemIE2-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-InformationItem2-ResourceStatusInd   CRITICALITY ignore  TYPE Local-Cell-InformationItem2-ResourceStatusInd   PRESENCE
mandatory }
}

Local-Cell-InformationItem2-ResourceStatusInd ::= SEQUENCE {
    local-Cell-ID                           Local-Cell-ID,
    dl-or-global-capacityCredit             DL-or-Global-CapacityCredit             OPTIONAL,
    ul-capacityCredit                       UL-CapacityCredit                       OPTIONAL,
    commonChannelsCapacityConsumptionLaw    CommonChannelsCapacityConsumptionLaw    OPTIONAL,
    dedicatedChannelsCapacityConsumptionLaw DedicatedChannelsCapacityConsumptionLaw OPTIONAL,
    maximum-DL-PowerCapability              MaximumDL-PowerCapability               OPTIONAL,
    minSpreadingFactor                      MinSpreadingFactor                      OPTIONAL,
    minimumDL-PowerCapability               MinimumDL-PowerCapability               OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Local-Cell-InformationItem2-ResourceStatusInd-ExtIEs} }   OPTIONAL,
    ...
}

Local-Cell-InformationItem2-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-ReferenceClockAvailability       CRITICALITY ignore          EXTENSION ReferenceClockAvailability         PRESENCE optional }|
    { ID    id-HSDPA-Capability                 CRITICALITY ignore          EXTENSION HSDPA-Capability                   PRESENCE optional }|
    { ID    id-E-DCH-Capability                 CRITICALITY ignore          EXTENSION E-DCH-Capability                   PRESENCE optional }|
    { ID    id-E-DCH-TTI2ms-Capability          CRITICALITY ignore          EXTENSION E-DCH-TTI2ms-Capability            PRESENCE conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to 'E-DCH Capable'.
    { ID    id-E-DCH-SF-Capability              CRITICALITY ignore          EXTENSION E-DCH-SF-Capability                PRESENCE conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to 'E-DCH Capable'.
    { ID    id-E-DCH-HARQ-Combining-Capability              CRITICALITY ignore          EXTENSION E-DCH-HARQ-Combining-Capability       PRESENCE
    conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to 'E-DCH Capable'.
    { ID    id-E-DCH-CapacityConsumptionLaw     CRITICALITY ignore          EXTENSION E-DCHCapacityConsumptionLaw        PRESENCE optional }|
    { ID    id-F-DPCH-Capability                CRITICALITY ignore          EXTENSION F-DPCH-Capability                  PRESENCE optional }|
    { ID    id-E-DCH-TDD-CapacityConsumptionLaw     CRITICALITY ignore      EXTENSION E-DCH-TDD-CapacityConsumptionLaw   PRESENCE optional }|
    { ID    id-ContinuousPacketConnectivityDTX-DRX-Capability           CRITICALITY ignore                          EXTENSION
ContinuousPacketConnectivityDTX-DRX-Capability          PRESENCE    optional }|
    { ID    id-Max-UE-DTX-Cycle                 CRITICALITY ignore          EXTENSION Max-UE-DTX-Cycle                   PRESENCE conditional }|
    -- The IE shall be present if Continuous Packet Connectivity DTX-DRX Capability IE is present and set to 'Continuous Packet Connectivity DTX-
DRX Capable'.
    { ID    id-ContinuousPacketConnectivityHS-SCCH-less-Capability      CRITICALITY ignore                          EXTENSION
ContinuousPacketConnectivityHS-SCCH-less-Capability         PRESENCE    optional }|
    { ID    id-MIMO-Capability                  CRITICALITY ignore      EXTENSION MIMO-Capability                       PRESENCE optional }|
    { ID    id-SixtyfourQAM-DL-Capability       CRITICALITY ignore      EXTENSION SixtyfourQAM-DL-Capability            PRESENCE optional }|
    { ID    id-MBMS-Capability                  CRITICALITY ignore      EXTENSION MBMS-Capability                       PRESENCE optional }|
    { ID    id-Enhanced-FACH-Capability         CRITICALITY ignore      EXTENSION Enhanced-FACH-Capability              PRESENCE optional }|
    { ID    id-Enhanced-PCH-Capability          CRITICALITY ignore      EXTENSION Enhanced-PCH-Capability               PRESENCE conditional }|
    -- The IE shall be present if Enhanced FACH Capability IE is set to 'Enhanced FACH Capable'.
```

```
    { ID    id-SixteenQAM-UL-Capability         CRITICALITY ignore      EXTENSION SixteenQAM-UL-Capability              PRESENCE optional }|
    { ID    id-HSDSCH-MACdPDU-SizeCapability    CRITICALITY ignore      EXTENSION HSDSCH-MACdPDU-SizeCapability         PRESENCE optional }|
    { ID    id-MBSFN-Only-Mode-Capability       CRITICALITY ignore      EXTENSION MBSFN-Only-Mode-Capability            PRESENCE optional }|
    { ID    id-F-DPCH-SlotFormatCapability      CRITICALITY ignore      EXTENSION F-DPCH-SlotFormatCapability           PRESENCE optional },
    ...
}

Local-Cell-Group-InformationList2-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-Group-
InformationItemIE2-ResourceStatusInd }}

Local-Cell-Group-InformationItemIE2-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-Group-InformationItem2-ResourceStatusInd   CRITICALITY ignore    TYPE Local-Cell-Group-InformationItem2-ResourceStatusInd
    PRESENCE mandatory }
}

Local-Cell-Group-InformationItem2-ResourceStatusInd ::= SEQUENCE {
    local-Cell-Group-ID                         Local-Cell-ID,
    dl-or-global-capacityCredit                 DL-or-Global-CapacityCredit                 OPTIONAL,
    ul-capacityCredit                           UL-CapacityCredit                           OPTIONAL,
    commonChannelsCapacityConsumptionLaw        CommonChannelsCapacityConsumptionLaw        OPTIONAL,
    dedicatedChannelsCapacityConsumptionLaw     DedicatedChannelsCapacityConsumptionLaw     OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { Local-Cell-Group-InformationItem2-ResourceStatusInd-ExtIEs} }
    OPTIONAL,
    ...
}

Local-Cell-Group-InformationItem2-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-CapacityConsumptionLaw        CRITICALITY ignore      EXTENSION E-DCHCapacityConsumptionLaw         PRESENCE optional }|
    { ID id-E-DCH-TDD-CapacityConsumptionLaw    CRITICALITY ignore      EXTENSION E-DCH-TDD-CapacityConsumptionLaw   PRESENCE   optional },
    ...
}

CCP-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxCCPinNodeB)) OF ProtocolIE-Single-Container {{ CCP-InformationItemIE-
ResourceStatusInd }}

CCP-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-CCP-InformationItem-ResourceStatusInd   CRITICALITY ignore  TYPE CCP-InformationItem-ResourceStatusInd    PRESENCE mandatory }
}

CCP-InformationItem-ResourceStatusInd ::= SEQUENCE {
    communicationControlPortID              CommunicationControlPortID,
    resourceOperationalState                ResourceOperationalState,
    availabilityStatus                      AvailabilityStatus,
    iE-Extensions                           ProtocolExtensionContainer { { CCP-InformationItem-ResourceStatusInd-ExtIEs} }     OPTIONAL,
    ...
}

CCP-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Cell-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxCellinNodeB)) OF ProtocolIE-Single-Container {{ Cell-InformationItemIE-
ResourceStatusInd }}
```

```
Cell-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-Cell-InformationItem-ResourceStatusInd   CRITICALITY ignore TYPE Cell-InformationItem-ResourceStatusInd   PRESENCE mandatory }
}

Cell-InformationItem-ResourceStatusInd  ::= SEQUENCE {
    c-ID                                    C-ID,
    resourceOperationalState                ResourceOperationalState                    OPTIONAL,
    availabilityStatus                      AvailabilityStatus                          OPTIONAL,
    primary-SCH-Information                 P-SCH-Information-ResourceStatusInd         OPTIONAL, -- FDD only
    secondary-SCH-Information               S-SCH-Information-ResourceStatusInd         OPTIONAL, -- FDD only
    primary-CPICH-Information               P-CPICH-Information-ResourceStatusInd       OPTIONAL, -- FDD only
    secondary-CPICH-Information             S-CPICH-InformationList-ResourceStatusInd   OPTIONAL, -- FDD only
    primary-CCPCH-Information               P-CCPCH-Information-ResourceStatusInd       OPTIONAL,
    bCH-Information                         BCH-Information-ResourceStatusInd           OPTIONAL,
    secondary-CCPCH-InformationList         S-CCPCH-InformationList-ResourceStatusInd   OPTIONAL,
    pCH-Information                         PCH-Information-ResourceStatusInd           OPTIONAL,
    pICH-Information                        PICH-Information-ResourceStatusInd          OPTIONAL,
    fACH-InformationList                    FACH-InformationList-ResourceStatusInd      OPTIONAL,
    pRACH-InformationList                   PRACH-InformationList-ResourceStatusInd     OPTIONAL,
    rACH-InformationList                    RACH-InformationList-ResourceStatusInd      OPTIONAL,
    aICH-InformationList                    AICH-InformationList-ResourceStatusInd      OPTIONAL, -- FDD only
    notUsed-1-pCPCH-InformationList         NULL                                        OPTIONAL,
    notUsed-2-cPCH-InformationList          NULL                                        OPTIONAL,
    notUsed-3-aP-AICH-InformationList       NULL                                        OPTIONAL,
    notUsed-4-cDCA-ICH-InformationList      NULL                                        OPTIONAL,
    sCH-Information                         SCH-Information-ResourceStatusInd           OPTIONAL, -- Applicable to 3.84Mcps TDD only
    iE-Extensions                           ProtocolExtensionContainer { { Cell-InformationItem-ResourceStatusInd-ExtIEs} } OPTIONAL,
    ...
}

Cell-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-FPACH-LCR-InformationList-ResourceStatusInd         CRITICALITY ignore  EXTENSION FPACH-LCR-InformationList-ResourceStatusInd
    PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
    { ID id-DwPCH-LCR-Information-ResourceStatusInd             CRITICALITY ignore  EXTENSION DwPCH-LCR-Information-ResourceStatusInd
    PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
    { ID id-HSDSCH-Resources-Information-ResourceStatusInd      CRITICALITY ignore  EXTENSION HS-DSCH-Resources-Information-ResourceStatusInd
    PRESENCE optional }|    -- For 1.28Mcps TDD, this HS-DSCH Resource Information is for the first Frequency repetition, HS-DSCH Resource
Information for Frequency repetitions 2 and on, should be defined in MultipleFreq-HS-DSCH-Resources-InformationList-ResourceStatusInd.
    { ID id-MICH-Information-ResourceStatusInd                  CRITICALITY ignore  EXTENSION Common-PhysicalChannel-Status-Information
    PRESENCE optional }|
    { ID id-S-CCPCH-InformationListExt-ResourceStatusInd        CRITICALITY ignore  EXTENSION S-CCPCH-InformationListExt-ResourceStatusInd
    PRESENCE optional }|
    -- Applicable to 3.84Mcps TDD only, used when there are more than maxSCCPCHCell SCCPCHs in the message.
    { ID id-S-CCPCH-LCR-InformationListExt-ResourceStatusInd    CRITICALITY ignore  EXTENSION S-CCPCH-LCR-InformationListExt-ResourceStatusInd
    PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only, used when there are more than maxSCCPCHCell SCCPCHs in the message.
    { ID id-E-DCH-Resources-Information-ResourceStatusInd       CRITICALITY ignore  EXTENSION E-DCH-Resources-Information-ResourceStatusInd
    PRESENCE optional }|
    -- For 1.28Mcps TDD, this E-DCH Resource Information is for the first Frequency repetition, E-DCH Resource Information for Frequency
repetitions 2 and on, should be defined in MultipleFreq-E-DCH-Resources-InformationList-ResourceStatusInd.
    { ID id-PLCCH-InformationList-ResourceStatusInd             CRITICALITY ignore  EXTENSION PLCCH-InformationList-ResourceStatusInd
    PRESENCE optional }|
    { ID id-P-CCPCH-768-Information-ResourceStatusInd           CRITICALITY ignore  EXTENSION Common-PhysicalChannel-Status-Information768
    PRESENCE optional }|
```

```
    { ID id-S-CCPCH-768-InformationList-ResourceStatusInd      CRITICALITY ignore  EXTENSION S-CCPCH-768-InformationList-ResourceStatusInd
    PRESENCE optional }|
    { ID id-PICH-768-Information-ResourceStatusInd             CRITICALITY ignore  EXTENSION Common-PhysicalChannel-Status-Information768
    PRESENCE optional }|
    { ID id-PRACH-768-InformationList-ResourceStatusInd        CRITICALITY ignore  EXTENSION PRACH-768-InformationList-ResourceStatusInd
    PRESENCE optional }|
    { ID id-SCH-768-Information-ResourceStatusInd              CRITICALITY ignore  EXTENSION Common-PhysicalChannel-Status-Information768
    PRESENCE optional }|
    { ID id-MICH-768-Information-ResourceStatusInd             CRITICALITY ignore  EXTENSION Common-PhysicalChannel-Status-Information768
    PRESENCE optional }|
    { ID id-E-RUCCH-InformationList-ResourceStatusInd          CRITICALITY ignore  EXTENSION E-RUCCH-InformationList-ResourceStatusInd
    PRESENCE optional }|
    { ID id-E-RUCCH-768-InformationList-ResourceStatusInd          CRITICALITY ignore  EXTENSION E-RUCCH-768-InformationList-ResourceStatusInd
        PRESENCE optional }|
    { ID id-Cell-Frequency-List-Information-LCR-MulFreq-ResourceStatusInd       CRITICALITY ignore                    EXTENSION Cell-Frequency-
List-Information-LCR-MulFreq-ResourceStatusInd          PRESENCE optional }|    -- Applicable to 1.28Mcps TDD when using multiple frequencies
    { ID id-UPPCH-LCR-InformationList-ResourceStatusInd                         CRITICALITY ignore                    EXTENSION UPPCH-LCR-
InformationList-ResourceStatusInd                   PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
    { ID id-multipleFreq-HS-DSCH-Resources-InformationList-ResourceStatusInd    CRITICALITY ignore                    EXTENSION MultipleFreq-HS-
DSCH-Resources-InformationList-ResourceStatusInd    PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD when using multiple frequencies, This HS-DSCH Resource Information is for the 2nd and beyond frequencies.
    { ID id-MultipleFreq-E-DCH-Resources-InformationList-ResourceStatusInd      CRITICALITY ignore                    EXTENSION MultipleFreq-E-DCH-
Resources-InformationList-ResourceStatusInd PRESENCE optional },
    -- Applicable to 1.28Mcps TDD when using multiple frequencies. This E-DCH Resource Information is for the 2nd and beyond frequencies.
    ...
}

P-SCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ P-SCH-InformationIE-ResourceStatusInd }}

P-SCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-P-SCH-Information   CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information                    PRESENCE mandatory }
}

S-SCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ S-SCH-InformationIE-ResourceStatusInd }}

S-SCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-S-SCH-Information   CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information                    PRESENCE mandatory }
}

P-CPICH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ P-CPICH-InformationIE-ResourceStatusInd }}

P-CPICH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-P-CPICH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information                PRESENCE mandatory }
}

S-CPICH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Single-Container {{ S-CPICH-InformationItemIE-
ResourceStatusInd }}

S-CPICH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-S-CPICH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information                PRESENCE mandatory }
}

P-CCPCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ P-CCPCH-InformationIE-ResourceStatusInd }}
```

```
P-CCPCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-P-CCPCH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information                PRESENCE mandatory }
}

BCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ BCH-InformationIE-ResourceStatusInd }}

BCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-BCH-Information   CRITICALITY ignore    TYPE Common-TransportChannel-Status-Information                PRESENCE mandatory }
}

S-CCPCH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxSCCPCHCell)) OF ProtocolIE-Single-Container {{ S-CCPCH-InformationItemIE-
ResourceStatusInd }}

S-CCPCH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-S-CCPCH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information                PRESENCE mandatory }
}

PCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ PCH-InformationIE-ResourceStatusInd }}

PCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-PCH-Information   CRITICALITY ignore    TYPE Common-TransportChannel-Status-Information                PRESENCE mandatory }
}

PICH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ PICH-InformationIE-ResourceStatusInd }}

PICH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-PICH-Information   CRITICALITY ignore   TYPE Common-PhysicalChannel-Status-Information                PRESENCE mandatory }
}

FACH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxFACHCell)) OF ProtocolIE-Single-Container {{ FACH-InformationItemIE-
ResourceStatusInd }}

FACH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-Information   CRITICALITY ignore   TYPE Common-TransportChannel-Status-Information                PRESENCE mandatory }
}

PRACH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ PRACH-InformationItemIE-
ResourceStatusInd }}

PRACH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-PRACH-Information   CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information                PRESENCE mandatory }
}

RACH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ RACH-InformationItemIE-
ResourceStatusInd }}

RACH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-RACH-Information   CRITICALITY ignore   TYPE Common-TransportChannel-Status-Information                PRESENCE mandatory }
}

AICH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ AICH-InformationItemIE-
ResourceStatusInd }}

AICH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
```

```
    { ID id-AICH-Information   CRITICALITY ignore   TYPE Common-PhysicalChannel-Status-Information                    PRESENCE mandatory }
}

SCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ SCH-InformationIE-ResourceStatusInd }}

SCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-SCH-Information   CRITICALITY ignore    TYPE Common-PhysicalChannel-Status-Information                   PRESENCE mandatory }
}

FPACH-LCR-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxFPACHCell)) OF ProtocolIE-Single-Container {{ FPACH-LCR-InformationItemIE-
ResourceStatusInd }}

FPACH-LCR-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-FPACH-LCR-Information  CRITICALITY ignore   TYPE Common-PhysicalChannel-Status-Information               PRESENCE mandatory }
}

DwPCH-LCR-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ DwPCH-LCR-InformationIE-ResourceStatusInd }}

DwPCH-LCR-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-DwPCH-LCR-Information   CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information               PRESENCE mandatory }
}

HS-DSCH-Resources-Information-ResourceStatusInd ::= SEQUENCE {
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    iE-Extensions                       ProtocolExtensionContainer  {{ HS-DSCH-Resources-Information-ResourceStatusInd-ExtIEs }}     OPTIONAL,
    ...
}

HS-DSCH-Resources-Information-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-UARFCNforNt      CRITICALITY ignore      EXTENSION UARFCN        PRESENCE optional},
    --  Applicable to 1.28Mcps TDD when using multiple frequencies.
    ...
}

S-CCPCH-InformationListExt-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxSCCPCHCellinExt)) OF ProtocolIE-Single-Container {{ S-CCPCH-
InformationItemIE-ResourceStatusInd }}

S-CCPCH-LCR-InformationListExt-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxSCCPCHCellinExtLCR)) OF ProtocolIE-Single-Container {{ S-CCPCH-
InformationItemIE-ResourceStatusInd }}

E-DCH-Resources-Information-ResourceStatusInd ::= SEQUENCE {
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    iE-Extensions                       ProtocolExtensionContainer  {{ E-DCH-Resources-Information-ResourceStatusInd-ExtIEs }}    OPTIONAL,
    ...
}

E-DCH-Resources-Information-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-UARFCNforNt      CRITICALITY ignore      EXTENSION UARFCN        PRESENCE optional},
    --  Applicable to 1.28Mcps TDD when using multiple frequencies.
    ...
}
```

```
PLCCH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPLCCHCell)) OF ProtocolIE-Single-Container {{ PLCCH-InformationItemIE-
ResourceStatusInd }}

PLCCH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-PLCCH-Information-ResourceStatusInd  CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information    PRESENCE mandatory }
}

S-CCPCH-768-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxSCCPCHCell768)) OF ProtocolIE-Single-Container {{ S-CCPCH-768-
InformationItemIE-ResourceStatusInd }}

S-CCPCH-768-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-S-CCPCH-768-Information-ResourceStatusInd   CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information768     PRESENCE
mandatory }
}

PRACH-768-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ PRACH-768-InformationItemIE-
ResourceStatusInd }}

PRACH-768-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-PRACH-768-Information   CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information768             PRESENCE mandatory }
}

E-RUCCH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxE-RUCCHCell)) OF ProtocolIE-Single-Container {{ E-RUCCH-InformationItemIE-
ResourceStatusInd }}

E-RUCCH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-E-RUCCH-Information     CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information                PRESENCE mandatory }
}

E-RUCCH-768-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxE-RUCCHCell)) OF ProtocolIE-Single-Container {{ E-RUCCH-768-
InformationItemIE-ResourceStatusInd }}

E-RUCCH-768-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-E-RUCCH-768-Information     CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information768         PRESENCE mandatory }
}

Cell-Frequency-List-Information-LCR-MulFreq-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxFrequencyinCell)) OF ProtocolIE-Single-Container {{ Cell-
Frequency-List-InformationIE-LCR-MulFreq-ResourceStatusInd }}

Cell-Frequency-List-InformationIE-LCR-MulFreq-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-Cell-Frequency-List-InformationItem-LCR-MulFreq-ResourceStatusInd   CRITICALITY ignore                 TYPE Cell-Frequency-List-
InformationItem-LCR-MulFreq-ResourceStatusInd       PRESENCE mandatory }
}

Cell-Frequency-List-InformationItem-LCR-MulFreq-ResourceStatusInd ::= SEQUENCE {
    uARFCN                          UARFCN,
    resourceOperationalState        ResourceOperationalState,
    availabilityStatus              AvailabilityStatus,
    cause                           Cause               OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer {{ Cell-Frequency-List-InformationItem-LCR-MulFreq-ResourceStatusInd-ExtIEs }}
        OPTIONAL,
    ...
}
```

```
Cell-Frequency-List-InformationItem-LCR-MulFreq-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UPPCH-LCR-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxFrequencyinCell)) OF ProtocolIE-Single-Container {{ UPPCH-LCR-InformationIE-
ResourceStatusInd }}

UPPCH-LCR-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-UPPCH-LCR-InformationItem-ResourceStatusInd     CRITICALITY ignore  TYPE UPPCH-LCR-InformationItem-ResourceStatusInd     PRESENCE
mandatory }
}

UPPCH-LCR-InformationItem-ResourceStatusInd ::= SEQUENCE {
    uARFCN                              UARFCN              OPTIONAL,
    uPPCHPositionLCR                    UPPCHPositionLCR,
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    iE-Extensions                       ProtocolExtensionContainer  {{ UPPCH-LCR-InformationItem-ResourceStatusInd-ExtIEs }}   OPTIONAL,
    ...
}

UPPCH-LCR-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MultipleFreq-HS-DSCH-Resources-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxFrequencyinCell-1)) OF ProtocolIE-Single-
Container{{ MultipleFreq-HS-DSCH-Resources-InformationItem-ResourceStatusInd }}
--Includes the 2nd through the max number of frequencies information repetitions.

MultipleFreq-HS-DSCH-Resources-InformationItem-ResourceStatusInd  NBAP-PROTOCOL-IES ::= {
    { ID id-HSDSCH-Resources-Information-ResourceStatusInd  CRITICALITY ignore  TYPE HS-DSCH-Resources-Information-ResourceStatusInd    PRESENCE
mandatory }
}

Power-Local-Cell-Group-InformationList2-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Power-
Local-Cell-Group-InformationItemIE2-ResourceStatusInd }}

Power-Local-Cell-Group-InformationItemIE2-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-Power-Local-Cell-Group-InformationItem2-ResourceStatusInd   CRITICALITY ignore  TYPE Power-Local-Cell-Group-InformationItem2-
ResourceStatusInd       PRESENCE mandatory  }
}

Power-Local-Cell-Group-InformationItem2-ResourceStatusInd::= SEQUENCE {
    power-Local-Cell-Group-ID           Local-Cell-ID,
    maximumDL-PowerCapability           MaximumDL-PowerCapability,
    iE-Extensions                       ProtocolExtensionContainer { { Power-Local-Cell-Group-InformationItem2-ResourceStatusInd-ExtIEs} }
    OPTIONAL,
    ...
}

Power-Local-Cell-Group-InformationItem2-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
MultipleFreq-E-DCH-Resources-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxFrequencyinCell-1)) OF ProtocolIE-Single-
Container{{ MultipleFreq-E-DCH-Resources-InformationItem-ResourceStatusInd }}
    --Includes the 2nd through the max number of frequencies information repetitions.

MultipleFreq-E-DCH-Resources-InformationItem-ResourceStatusInd  NBAP-PROTOCOL-IES ::= {
    { ID id-E-DCH-Resources-Information-ResourceStatusInd   CRITICALITY ignore  TYPE E-DCH-Resources-Information-ResourceStatusInd   PRESENCE
mandatory }
}

-- **************************************************************
--
-- SYSTEM INFORMATION UPDATE REQUEST
--
-- **************************************************************

SystemInformationUpdateRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{SystemInformationUpdateRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{SystemInformationUpdateRequest-Extensions}}                OPTIONAL,
    ...
}

SystemInformationUpdateRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                                        CRITICALITY reject  TYPE C-ID                               PRESENCE mandatory }|
    { ID id-BCCH-ModificationTime                       CRITICALITY reject  TYPE BCCH-ModificationTime              PRESENCE optional }|
    { ID id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst     CRITICALITY reject  TYPE MIB-SB-SIB-InformationList-SystemInfoUpdateRqst
    PRESENCE mandatory },
    ...
}

SystemInformationUpdateRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MIB-SB-SIB-InformationList-SystemInfoUpdateRqst ::= SEQUENCE (SIZE (1..maxIB)) OF MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst

MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst ::= SEQUENCE {
    iB-Type                             IB-Type,
    iB-OC-ID                            IB-OC-ID,
    deletionIndicator                   DeletionIndicator-SystemInfoUpdate,
    iE-Extensions                       ProtocolExtensionContainer { { MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst-ExtIEs} }     OPTIONAL,
    ...
}

MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DeletionIndicator-SystemInfoUpdate ::= CHOICE {
    no-Deletion                         No-Deletion-SystemInfoUpdate,
    yes-Deletion                        NULL

}

No-Deletion-SystemInfoUpdate ::= SEQUENCE {
```

```
    sIB-Originator                          SIB-Originator              OPTIONAL,
    -- This IE shall be present if the IB-Type IE is set to "SIB"
    iB-SG-REP                               IB-SG-REP                   OPTIONAL,
    segmentInformationList                  SegmentInformationList-SystemInfoUpdate,
    iE-Extensions                           ProtocolExtensionContainer { { No-DeletionItem-SystemInfoUpdate-ExtIEs} }    OPTIONAL,
    ...
}

No-DeletionItem-SystemInfoUpdate-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SegmentInformationList-SystemInfoUpdate ::= ProtocolIE-Single-Container {{ SegmentInformationListIEs-SystemInfoUpdate }}

SegmentInformationListIEs-SystemInfoUpdate NBAP-PROTOCOL-IES ::= {
    { ID id-SegmentInformationListIE-SystemInfoUpdate   CRITICALITY reject  TYPE SegmentInformationListIE-SystemInfoUpdate     PRESENCE mandatory }
}

SegmentInformationListIE-SystemInfoUpdate ::= SEQUENCE (SIZE (1..maxIBSEG)) OF SegmentInformationItem-SystemInfoUpdate

SegmentInformationItem-SystemInfoUpdate ::= SEQUENCE {
    iB-SG-POS                               IB-SG-POS           OPTIONAL,
    segment-Type                            Segment-Type        OPTIONAL,
    -- This IE shall be present if the SIB Originator IE is set to "CRNC" or the IB-Type IE is set to "MIB", "SB1" or "SB2"
    iB-SG-DATA                              IB-SG-DATA          OPTIONAL,
    -- This IE shall be present if the SIB Originator IE is set to "CRNC" or the IB-Type IE is set to "MIB", "SB1" or "SB2"
    iE-Extensions                           ProtocolExtensionContainer { { SegmentInformationItem-SystemInfoUpdate-ExtIEs} }OPTIONAL,
    ...
}

SegmentInformationItem-SystemInfoUpdate-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- SYSTEM INFORMATION UPDATE RESPONSE
--
-- **************************************************************

SystemInformationUpdateResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{SystemInformationUpdateResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{SystemInformationUpdateResponse-Extensions}}              OPTIONAL,
    ...
}

SystemInformationUpdateResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CriticalityDiagnostics      CRITICALITY ignore          TYPE CriticalityDiagnostics                     PRESENCE optional },
    ...
}

SystemInformationUpdateResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
-- **************************************************************
--
-- SYSTEM INFORMATION UPDATE FAILURE
--
-- **************************************************************

SystemInformationUpdateFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{SystemInformationUpdateFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{SystemInformationUpdateFailure-Extensions}}                OPTIONAL,
    ...
}

SystemInformationUpdateFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Cause                           CRITICALITY ignore          TYPE Cause                                  PRESENCE mandatory   }|
    { ID id-CriticalityDiagnostics          CRITICALITY ignore          TYPE CriticalityDiagnostics                 PRESENCE optional },
    ...
}

SystemInformationUpdateFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP REQUEST FDD
--
-- **************************************************************

RadioLinkSetupRequestFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkSetupRequestFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkSetupRequestFDD-Extensions}}                      OPTIONAL,
    ...
}

RadioLinkSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID                     CRITICALITY reject  TYPE CRNC-CommunicationContextID              PRESENCE mandatory
}|
    { ID id-UL-DPCH-Information-RL-SetupRqstFDD             CRITICALITY reject  TYPE UL-DPCH-Information-RL-SetupRqstFDD      PRESENCE mandatory
}|
    { ID id-DL-DPCH-Information-RL-SetupRqstFDD             CRITICALITY reject  TYPE DL-DPCH-Information-RL-SetupRqstFDD      PRESENCE optional }|
    { ID id-DCH-FDD-Information                             CRITICALITY reject  TYPE DCH-FDD-Information                      PRESENCE mandatory
}|
    { ID id-RL-InformationList-RL-SetupRqstFDD              CRITICALITY notify  TYPE RL-InformationList-RL-SetupRqstFDD       PRESENCE mandatory
}|
    { ID id-Transmission-Gap-Pattern-Sequence-Information   CRITICALITY reject  TYPE Transmission-Gap-Pattern-Sequence-Information
        PRESENCE optional } |
    { ID id-Active-Pattern-Sequence-Information             CRITICALITY reject  TYPE Active-Pattern-Sequence-Information      PRESENCE optional },
    ...
}

RadioLinkSetupRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-Information           CRITICALITY ignore  EXTENSION DL-PowerBalancing-Information      PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information                  CRITICALITY reject  EXTENSION HSDSCH-FDD-Information             PRESENCE optional }|
```

```
    { ID id-HSDSCH-RNTI                             CRITICALITY reject  EXTENSION HSDSCH-RNTI                          PRESENCE conditional }|
    -- The IE shall be present if HS-DSCH Information IE is present
    { ID id-HSPDSCH-RL-ID                           CRITICALITY reject  EXTENSION RL-ID                                PRESENCE conditional }|
    -- The IE shall be present if HS-DSCH Information IE is present
    { ID id-E-DPCH-Information-RL-SetupRqstFDD      CRITICALITY reject  EXTENSION E-DPCH-Information-RL-SetupRqstFDD  PRESENCE optional }|
    { ID id-E-DCH-FDD-Information                   CRITICALITY reject  EXTENSION E-DCH-FDD-Information               PRESENCE conditional }|
    -- The IE shall be present if E-DPCH Information IE is present
    { ID id-Serving-E-DCH-RL-ID                     CRITICALITY reject  EXTENSION Serving-E-DCH-RL-ID                 PRESENCE optional }|
    { ID id-F-DPCH-Information-RL-SetupRqstFDD      CRITICALITY reject  EXTENSION F-DPCH-Information-RL-SetupRqstFDD  PRESENCE optional }|
    { ID id-Initial-DL-DPCH-TimingAdjustment-Allowed        CRITICALITY ignore  EXTENSION Initial-DL-DPCH-TimingAdjustment-Allowed
    PRESENCE optional }|
    { ID id-DCH-Indicator-For-E-DCH-HSDPA-Operation         CRITICALITY reject  EXTENSION DCH-Indicator-For-E-DCH-HSDPA-Operation
                PRESENCE optional }|
    { ID id-Serving-Cell-Change-CFN                 CRITICALITY reject  EXTENSION CFN                              PRESENCE optional }|
    { ID id-ContinuousPacketConnectivityDTX-DRX-Information         CRITICALITY reject      EXTENSION ContinuousPacketConnectivityDTX-DRX-
Information         PRESENCE optional }|
    { ID id-ContinuousPacketConnectivityHS-SCCH-less-Information    CRITICALITY reject      EXTENSION ContinuousPacketConnectivityHS-SCCH-less-
Information         PRESENCE optional },
    ...
}

UL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    ul-ScramblingCode                       UL-ScramblingCode,
    minUL-ChannelisationCodeLength          MinUL-ChannelisationCodeLength,
    maxNrOfUL-DPDCHs                        MaxNrOfUL-DPDCHs        OPTIONAL,
    -- This IE shall be present if Min UL Channelisation Code length IE is set to 4 --
    ul-PunctureLimit                        PunctureLimit,
    tFCS                                    TFCS,
    ul-DPCCH-SlotFormat                     UL-DPCCH-SlotFormat,
    ul-SIR-Target                           UL-SIR,
    diversityMode                           DiversityMode,
    not-Used-sSDT-CellID-Length             NULL                    OPTIONAL,
    not-Used-s-FieldLength                  NULL                    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DPC-Mode                                CRITICALITY reject  EXTENSION DPC-Mode                                  PRESENCE optional }|
    { ID id-UL-DPDCH-Indicator-For-E-DCH-Operation  CRITICALITY reject  EXTENSION UL-DPDCH-Indicator-For-E-DCH-Operation    PRESENCE optional },
    ...
}

DL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    tFCS                                    TFCS,
    dl-DPCH-SlotFormat                      DL-DPCH-SlotFormat,
    tFCI-SignallingMode                     TFCI-SignallingMode,
    tFCI-Presence                           TFCI-Presence                   OPTIONAL,
    -- this IE shall be present if the DL DPCH slot format IE is set to any of the values from 12 to 16 --
    multiplexingPosition                    MultiplexingPosition,
    not-Used-pDSCH-RL-ID                    NULL                            OPTIONAL,
    not-Used-pDSCH-CodeMapping              NULL                            OPTIONAL,
    powerOffsetInformation                  PowerOffsetInformation-RL-SetupRqstFDD,
    fdd-TPC-DownlinkStepSize                FDD-TPC-DownlinkStepSize,
```

```
    limitedPowerIncrease                    LimitedPowerIncrease,
    innerLoopDLPCStatus                     InnerLoopDLPCStatus,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerOffsetInformation-RL-SetupRqstFDD ::= SEQUENCE {
    pO1-ForTFCI-Bits                        PowerOffset,
    pO2-ForTPC-Bits                         PowerOffset,
    pO3-ForPilotBits                        PowerOffset,
    iE-Extensions                           ProtocolExtensionContainer { { PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF
    ProtocolIE-Single-Container{{ RL-InformationItemIE-RL-SetupRqstFDD }}

RL-InformationItemIE-RL-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-SetupRqstFDD          CRITICALITY notify          TYPE RL-InformationItem-RL-SetupRqstFDD    PRESENCE mandatory }
}

RL-InformationItem-RL-SetupRqstFDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    c-ID                                C-ID,
    firstRLS-indicator                  FirstRLS-Indicator,
    frameOffset                         FrameOffset,
    chipOffset                          ChipOffset,
    propagationDelay                    PropagationDelay                OPTIONAL,
    diversityControlField               DiversityControlField           OPTIONAL,
    -- This IE shall be present if the RL is not the first one in the RL Information IE
    dl-CodeInformation                  FDD-DL-CodeInformation,
    initialDL-transmissionPower         DL-Power,
    maximumDL-power                     DL-Power,
    minimumDL-power                     DL-Power,
    not-Used-sSDT-Cell-Identity         NULL                            OPTIONAL,
    transmitDiversityIndicator          TransmitDiversityIndicator      OPTIONAL,
    -- This IE shall be present if Diversity Mode IE in UL DPCH Information group is not set to 'none'
    iE-Extensions                       ProtocolExtensionContainer { { RL-InformationItem-RL-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

RL-InformationItem-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-Specific-DCH-Info                        CRITICALITY ignore  EXTENSION RL-Specific-DCH-Info          PRESENCE optional }|
    { ID id-DelayedActivation                           CRITICALITY reject  EXTENSION DelayedActivation             PRESENCE optional }|
    { ID id-Primary-CPICH-Usage-for-Channel-Estimation  CRITICALITY ignore  EXTENSION Primary-CPICH-Usage-for-Channel-Estimation  PRESENCE
optional }|
```

```
    { ID id-Secondary-CPICH-Information               CRITICALITY ignore  EXTENSION CommonPhysicalChannelID      PRESENCE optional }|
    { ID id-E-DCH-RL-Indication                       CRITICALITY reject  EXTENSION E-DCH-RL-Indication          PRESENCE optional }|
    { ID id-RL-Specific-E-DCH-Info                    CRITICALITY ignore  EXTENSION RL-Specific-E-DCH-Info       PRESENCE optional }|
    { ID id-SynchronisationIndicator                  CRITICALITY ignore  EXTENSION SynchronisationIndicator     PRESENCE optional }|
    { ID id-ExtendedPropagationDelay                  CRITICALITY ignore  EXTENSION ExtendedPropagationDelay     PRESENCE optional }|
    { ID id-F-DPCH-SlotFormat                         CRITICALITY reject  EXTENSION F-DPCH-SlotFormat            PRESENCE optional },
    ...
}
E-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    maxSet-E-DPDCHs                             Max-Set-E-DPDCHs,
    ul-PunctureLimit                            PunctureLimit,
    e-TFCS-Information                          E-TFCS-Information,
    e-TTI                                       E-TTI,
    e-DPCCH-PO                                  E-DPCCH-PO,
    e-RGCH-2-IndexStepThreshold                 E-RGCH-2-IndexStepThreshold,
    e-RGCH-3-IndexStepThreshold                 E-RGCH-3-IndexStepThreshold,
    hARQ-Info-for-E-DCH                         HARQ-Info-for-E-DCH,
    hSDSCH-Configured-Indicator                 HSDSCH-Configured-Indicator,
    iE-Extensions                               ProtocolExtensionContainer { { E-DPCH-Information-RL-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

E-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

F-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    powerOffsetInformation              PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD,
    fdd-TPC-DownlinkStepSize            FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease                LimitedPowerIncrease,
    innerLoopDLPCStatus                 InnerLoopDLPCStatus,
    iE-Extensions                       ProtocolExtensionContainer { { F-DPCH-Information-RL-SetupRqstFDD-ExtIEs} }           OPTIONAL,
    ...
}

F-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD ::= SEQUENCE {
    pO2-ForTPC-Bits                     PowerOffset,
    --This IE shall be ignored by Node B
    iE-Extensions                       ProtocolExtensionContainer { { PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP REQUEST TDD
--
```

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-- **************************************************************

RadioLinkSetupRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkSetupRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkSetupRequestTDD-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkSetupRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID                  CRITICALITY reject  TYPE CRNC-CommunicationContextID               PRESENCE mandatory
}|
    { ID    id-UL-CCTrCH-InformationList-RL-SetupRqstTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationList-RL-SetupRqstTDD PRESENCE optional }|
    { ID    id-DL-CCTrCH-InformationList-RL-SetupRqstTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationList-RL-SetupRqstTDD PRESENCE optional }|
    { ID    id-DCH-TDD-Information                          CRITICALITY reject  TYPE DCH-TDD-Information                       PRESENCE optional }|
    { ID    id-DSCH-TDD-Information                         CRITICALITY reject  TYPE DSCH-TDD-Information                      PRESENCE optional }|
    { ID    id-USCH-Information                             CRITICALITY reject  TYPE USCH-Information                          PRESENCE optional }|
    { ID    id-RL-Information-RL-SetupRqstTDD               CRITICALITY reject  TYPE RL-Information-RL-SetupRqstTDD            PRESENCE mandatory
},
    ...
}

RadioLinkSetupRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-TDD-Information          CRITICALITY reject      EXTENSION HSDSCH-TDD-Information               PRESENCE optional }|
    { ID id-HSDSCH-RNTI                     CRITICALITY reject      EXTENSION HSDSCH-RNTI                          PRESENCE conditional }|
    -- The IE shall be present if HS-DSCH Information IE is present
    { ID id-HSPDSCH-RL-ID                   CRITICALITY reject      EXTENSION RL-ID                                PRESENCE conditional }|
    -- The IE shall be present if HS-DSCH Information IE is present
    { ID id-PDSCH-RL-ID                     CRITICALITY ignore      EXTENSION RL-ID                                PRESENCE optional }|
    { ID id-E-DCH-Information               CRITICALITY reject      EXTENSION E-DCH-Information                    PRESENCE optional }|
    { ID id-E-DCH-Serving-RL-ID             CRITICALITY reject      EXTENSION RL-ID                                PRESENCE optional }|
    { ID id-E-DCH-768-Information           CRITICALITY reject      EXTENSION E-DCH-768-Information                PRESENCE optional }|
    { ID id-E-DCH-LCR-Information           CRITICALITY reject      EXTENSION E-DCH-LCR-Information                PRESENCE optional }|
    { ID id-PowerControlGAP                 CRITICALITY ignore      EXTENSION ControlGAP                           PRESENCE optional },
     -- Applicable to 1.28Mcps TDD only
    ...
}

UL-CCTrCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE(1..maxNrOfCCTrCHs)) OF
    ProtocolIE-Single-Container{{ UL-CCTrCH-InformationItemIE-RL-SetupRqstTDD }}

UL-CCTrCH-InformationItemIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD       CRITICALITY notify      TYPE UL-CCTrCH-InformationItem-RL-SetupRqstTDD   PRESENCE
mandatory }
}

UL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    cCTrCH-ID                               CCTrCH-ID,
    tFCS                                    TFCS,
    tFCI-Coding                             TFCI-Coding,
    punctureLimit                           PunctureLimit,
    uL-DPCH-Information                     UL-DPCH-Information-RL-SetupRqstTDD     OPTIONAL,   -- Applicable to 3.84Mcps TDD only
    iE-Extensions                           ProtocolExtensionContainer { { UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}
```

```
UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-LCR-Information-RL-SetupRqstTDD     CRITICALITY notify  EXTENSION UL-DPCH-LCR-Information-RL-SetupRqstTDD  PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-UL-SIRTarget                               CRITICALITY reject  EXTENSION UL-SIR                                PRESENCE optional }|
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.
    { ID id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD  CRITICALITY reject  EXTENSION TDD-TPC-UplinkStepSize-LCR           PRESENCE optional }|
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.
    { ID id-UL-DPCH-768-Information-RL-SetupRqstTDD     CRITICALITY notify  EXTENSION UL-DPCH-768-Information-RL-SetupRqstTDD  PRESENCE optional },
    -- Applicable to 7.68Mcps TDD only
    ...
}

UL-DPCH-Information-RL-SetupRqstTDD ::= ProtocolIE-Single-Container{{ UL-DPCH-InformationIE-RL-SetupRqstTDD }}

UL-DPCH-InformationIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationList-RL-SetupRqstTDD     CRITICALITY notify  TYPE UL-DPCH-InformationItem-RL-SetupRqstTDD    PRESENCE mandatory   }
}

UL-DPCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-Timeslot-Information                 UL-Timeslot-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

UL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-LCR-Information-RL-SetupRqstTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-TimeslotLCR-Information              UL-TimeslotLCR-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-LCR-InformationItem-RL-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

UL-DPCH-LCR-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-768-Information-RL-SetupRqstTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-Timeslot768-Information              UL-Timeslot768-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-768-InformationItem-RL-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}
```

```
UL-DPCH-768-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container{{ DL-CCTrCH-InformationItemIE-RL-
SetupRqstTDD }}

DL-CCTrCH-InformationItemIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD   CRITICALITY notify  TYPE DL-CCTrCH-InformationItem-RL-SetupRqstTDD     PRESENCE mandatory}
}

DL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    cCTrCH-ID                               CCTrCH-ID,
    tFCS                                    TFCS,
    tFCI-Coding                             TFCI-Coding,
    punctureLimit                           PunctureLimit,
    tdd-TPC-DownlinkStepSize                TDD-TPC-DownlinkStepSize,
    cCTrCH-TPCList                          CCTrCH-TPCList-RL-SetupRqstTDD          OPTIONAL,
    dL-DPCH-Information                     DL-DPCH-Information-RL-SetupRqstTDD     OPTIONAL,   -- Applicable to 3.84Mcps TDD only
    iE-Extensions                           ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-LCR-Information-RL-SetupRqstTDD     CRITICALITY notify      EXTENSION DL-DPCH-LCR-Information-RL-SetupRqstTDD    PRESENCE
optional    }|  -- Applicable to 1.28Mcps TDD only
    { ID id-CCTrCH-Initial-DL-Power-RL-SetupRqstTDD     CRITICALITY ignore      EXTENSION DL-Power                   PRESENCE optional }|
    { ID id-CCTrCH-Maximum-DL-Power-RL-SetupRqstTDD     CRITICALITY ignore      EXTENSION DL-Power                   PRESENCE optional }|
    { ID id-CCTrCH-Minimum-DL-Power-RL-SetupRqstTDD     CRITICALITY ignore      EXTENSION DL-Power                   PRESENCE optional }|
    { ID id-DL-DPCH-768-Information-RL-SetupRqstTDD     CRITICALITY notify      EXTENSION DL-DPCH-768-Information-RL-SetupRqstTDD    PRESENCE
optional    },  -- Applicable to 7.68Mcps TDD only
    ...
}

CCTrCH-TPCList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCItem-RL-SetupRqstTDD

CCTrCH-TPCItem-RL-SetupRqstTDD   ::= SEQUENCE {
    cCTrCH-ID                               CCTrCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-Information-RL-SetupRqstTDD ::= ProtocolIE-Single-Container{{ DL-DPCH-InformationIE-RL-SetupRqstTDD }}

DL-DPCH-InformationIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationList-RL-SetupRqstTDD     CRITICALITY notify  TYPE DL-DPCH-InformationItem-RL-SetupRqstTDD    PRESENCE mandatory   }
}

DL-DPCH-InformationItem-RL-SetupRqstTDD  ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
```

```
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    dL-Timeslot-Information                 DL-Timeslot-Information,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-LCR-Information-RL-SetupRqstTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    dL-TimeslotLCR-Information              DL-TimeslotLCR-Information,
    tstdIndicator                           TSTD-Indicator,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-LCR-InformationItem-RL-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

DL-DPCH-LCR-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-768-Information-RL-SetupRqstTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    dL-Timeslot768-Information              DL-Timeslot768-Information,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-768-InformationItem-RL-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

DL-DPCH-768-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Information-RL-SetupRqstTDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    c-ID                                    C-ID,
    frameOffset                             FrameOffset,
    specialBurstScheduling                  SpecialBurstScheduling,
    initialDL-transmissionPower             DL-Power,
    maximumDL-power                         DL-Power,
    minimumDL-power                         DL-Power,
    dL-TimeSlotISCPInfo                     DL-TimeslotISCPInfo OPTIONAL,   -- Applicable to 3.84Mcps TDD and 7.68Mcps TDD only
    iE-Extensions                           ProtocolExtensionContainer { { RL-Information-RL-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

RL-Information-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TimeslotISCP-LCR-InfoList-RL-SetupRqstTDD   CRITICALITY reject      EXTENSION DL-TimeslotISCPInfoLCR            PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
```

```
    { ID id-RL-Specific-DCH-Info                        CRITICALITY ignore      EXTENSION RL-Specific-DCH-Info              PRESENCE optional }|
    { ID id-DelayedActivation                           CRITICALITY reject      EXTENSION DelayedActivation                 PRESENCE optional }|
    { ID id-UL-Synchronisation-Parameters-LCR           CRITICALITY reject      EXTENSION UL-Synchronisation-Parameters-LCR PRESENCE optional }|
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-UARFCNforNt                                 CRITICALITY reject      EXTENSION UARFCN                            PRESENCE optional },
    -- Mandatory for 1.28Mcps TDD when using multiple frequencies
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP RESPONSE FDD
--
-- **************************************************************

RadioLinkSetupResponseFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkSetupResponseFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkSetupResponseFDD-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkSetupResponseFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID                 CRITICALITY ignore  TYPE CRNC-CommunicationContextID                PRESENCE mandatory
}|
    { ID id-NodeB-CommunicationContextID                CRITICALITY ignore  TYPE NodeB-CommunicationContextID                PRESENCE mandatory
}|
    { ID id-CommunicationControlPortID                  CRITICALITY ignore  TYPE CommunicationControlPortID                  PRESENCE mandatory
}|
    { ID id-RL-InformationResponseList-RL-SetupRspFDD   CRITICALITY ignore  TYPE RL-InformationResponseList-RL-SetupRspFDD   PRESENCE mandatory
}|
    { ID id-CriticalityDiagnostics                      CRITICALITY ignore  TYPE CriticalityDiagnostics                      PRESENCE optional },
    ...
}

RadioLinkSetupResponseFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-FDD-Information-Response             CRITICALITY ignore  EXTENSION HSDSCH-FDD-Information-Response       PRESENCE optional }|
    { ID id-ContinuousPacketConnectivityHS-SCCH-less-Information-Response       CRITICALITY ignore                  EXTENSION
    ContinuousPacketConnectivityHS-SCCH-less-Information-Response           PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-SetupRspFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container{{ RL-InformationResponseItemIE-RL-
SetupRspFDD }}

RL-InformationResponseItemIE-RL-SetupRspFDD NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-SetupRspFDD   CRITICALITY ignore  TYPE RL-InformationResponseItem-RL-SetupRspFDD  PRESENCE mandatory }
}

RL-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    rL-Set-ID                                   RL-Set-ID,
    received-total-wide-band-power              Received-total-wide-band-power-Value,
    diversityIndication                         DiversityIndication-RL-SetupRspFDD,
    not-Used-dSCH-InformationResponseList       NULL                            OPTIONAL,
```

```
    sSDT-SupportIndicator                       SSDT-SupportIndicator,
    iE-Extensions                               ProtocolExtensionContainer { { RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs} }
    OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-ActivationIndicator       CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator       PRESENCE optional
}|
    { ID id-E-DCH-RL-Set-ID                             CRITICALITY ignore  EXTENSION RL-Set-ID                                 PRESENCE optional
}|
    { ID id-E-DCH-FDD-DL-Control-Channel-Information    CRITICALITY ignore  EXTENSION E-DCH-FDD-DL-Control-Channel-Information    PRESENCE optional
}|
    { ID id-Initial-DL-DPCH-TimingAdjustment            CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment                  PRESENCE optional
},
    ...
}

DiversityIndication-RL-SetupRspFDD ::= CHOICE {
    combining                                   Combining-RL-SetupRspFDD,
    nonCombiningOrFirstRL                       NonCombiningOrFirstRL-RL-SetupRspFDD
}

Combining-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    iE-Extensions                               ProtocolExtensionContainer { { Combining-RL-SetupRspFDD-ExtIEs} }     OPTIONAL,
    ...
}

Combining-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NonCombiningOrFirstRL-RL-SetupRspFDD ::= SEQUENCE {
    dCH-InformationResponse                     DCH-InformationResponse,
    iE-Extensions                               ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs} }    OPTIONAL,
    ...
}

NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-FDD-Information-Response      CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response          PRESENCE optional },
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP RESPONSE TDD
--
-- **************************************************************

RadioLinkSetupResponseTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkSetupResponseTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkSetupResponseTDD-Extensions}}                    OPTIONAL,
    ...
```

```
}

RadioLinkSetupResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID             CRITICALITY ignore  TYPE CRNC-CommunicationContextID                  PRESENCE mandatory }|
    { ID id-NodeB-CommunicationContextID            CRITICALITY ignore  TYPE NodeB-CommunicationContextID             PRESENCE mandatory }|
    { ID id-CommunicationControlPortID              CRITICALITY ignore  TYPE CommunicationControlPortID               PRESENCE mandatory }|
    { ID id-RL-InformationResponse-RL-SetupRspTDD   CRITICALITY ignore  TYPE RL-InformationResponse-RL-SetupRspTDD    PRESENCE optional }|
    -- Mandatory for 3.84Mcps TDD and 7.68Mcps TDD, Not Applicable to 1.28Mcps TDD
    { ID id-CriticalityDiagnostics                  CRITICALITY ignore  TYPE CriticalityDiagnostics                   PRESENCE optional },
    ...
}

RadioLinkSetupResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-InformationResponse-LCR-RL-SetupRspTDD   CRITICALITY ignore  EXTENSION RL-InformationResponse-LCR-RL-SetupRspTDD   PRESENCE
    optional    }|  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-HSDSCH-TDD-Information-Response         CRITICALITY ignore      EXTENSION HSDSCH-TDD-Information-Response    PRESENCE optional }|
    { ID id-E-DCH-Information-Response              CRITICALITY ignore      EXTENSION E-DCH-Information-Response         PRESENCE optional },
    ...
}

RL-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    uL-TimeSlot-ISCP-Info                       UL-TimeSlot-ISCP-Info,
    ul-PhysCH-SF-Variation                      UL-PhysCH-SF-Variation,
    dCH-InformationResponseList                 DCH-InformationResponseList-RL-SetupRspTDD                      OPTIONAL,
    dSCH-InformationResponseList                DSCH-InformationResponseList-RL-SetupRspTDD                     OPTIONAL,
    uSCH-InformationResponseList                USCH-InformationResponseList-RL-SetupRspTDD                     OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { RL-InformationResponseList-RL-SetupRspTDD-ExtIEs} }
    OPTIONAL,
    ...
}

RL-InformationResponseList-RL-SetupRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container{{ DCH-InformationResponseListIEs-RL-SetupRspTDD }}

DCH-InformationResponseListIEs-RL-SetupRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse CRITICALITY     ignore      TYPE    DCH-InformationResponse  PRESENCE          mandatory}
 }

DSCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseListIEs-RL-SetupRspTDD }}

DSCH-InformationResponseListIEs-RL-SetupRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationResponse   CRITICALITY ignore   TYPE DSCH-InformationResponse       PRESENCE mandatory }
}

USCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{ USCH-InformationResponseListIEs-RL-SetupRspTDD }}

USCH-InformationResponseListIEs-RL-SetupRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationResponse   CRITICALITY ignore   TYPE USCH-InformationResponse       PRESENCE mandatory }
}
```

```
RL-InformationResponse-LCR-RL-SetupRspTDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    uL-TimeSlot-ISCP-LCR-Info               UL-TimeSlot-ISCP-LCR-Info,
    ul-PhysCH-SF-Variation                  UL-PhysCH-SF-Variation,
    dCH-InformationResponseList             DCH-InformationResponseList-RL-SetupRspTDD                      OPTIONAL,
    dSCH-InformationResponseList            DSCH-InformationResponseList-RL-SetupRspTDD                     OPTIONAL,
    uSCH-InformationResponseList            USCH-InformationResponseList-RL-SetupRspTDD                     OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationResponseList-LCR-RL-SetupRspTDD-ExtIEs} }
    OPTIONAL,
    ...
}

RL-InformationResponseList-LCR-RL-SetupRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP FAILURE FDD
--
-- **************************************************************

RadioLinkSetupFailureFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkSetupFailureFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkSetupFailureFDD-Extensions}}                 OPTIONAL,
    ...
}

RadioLinkSetupFailureFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID         CRITICALITY ignore  TYPE CRNC-CommunicationContextID                PRESENCE mandatory }|
    { ID id-NodeB-CommunicationContextID        CRITICALITY ignore  TYPE NodeB-CommunicationContextID               PRESENCE conditional }|
    -- This IE shall be present if at least one of the radio links has been successfully set up
    { ID id-CommunicationControlPortID          CRITICALITY ignore  TYPE CommunicationControlPortID                 PRESENCE optional }|
    { ID id-CauseLevel-RL-SetupFailureFDD       CRITICALITY ignore  TYPE CauseLevel-RL-SetupFailureFDD              PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics              CRITICALITY ignore  TYPE CriticalityDiagnostics                     PRESENCE optional },
    ...
}

RadioLinkSetupFailureFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CauseLevel-RL-SetupFailureFDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-SetupFailureFDD,
    rLSpecificCause     RLSpecificCauseList-RL-SetupFailureFDD,
    ...
}

GeneralCauseList-RL-SetupFailureFDD ::= SEQUENCE {
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureFDD-ExtIEs} }   OPTIONAL,
    ...
}
```

```
GeneralCauseItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-SetupFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-SetupFailureFDD      Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD,
    successful-RL-InformationRespList-RL-SetupFailureFDD        Successful-RL-InformationRespList-RL-SetupFailureFDD  OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs} }   OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-FDD-Information-Response     CRITICALITY ignore      EXTENSION HSDSCH-FDD-Information-Response        PRESENCE optional }|
    { ID id-ContinuousPacketConnectivityHS-SCCH-less-Information-Response       CRITICALITY ignore                  EXTENSION
    ContinuousPacketConnectivityHS-SCCH-less-Information-Response           PRESENCE optional },
    ...
}

Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs))  OF ProtocolIE-Single-Container {{ Unsuccessful-RL-
InformationRespItemIE-RL-SetupFailureFDD }}

Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD  CRITICALITY ignore      TYPE Unsuccessful-RL-InformationRespItem-RL-
SetupFailureFDD PRESENCE mandatory }
}

Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    cause                               Cause,
    iE-Extensions                       ProtocolExtensionContainer { { Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs} }
    OPTIONAL,
    ...
}

Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Successful-RL-InformationRespList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1.. maxNrOfRLs)) OF ProtocolIE-Single-Container {{ Successful-RL-
InformationRespItemIE-RL-SetupFailureFDD }}

Successful-RL-InformationRespItemIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID id-Successful-RL-InformationRespItem-RL-SetupFailureFDD        CRITICALITY ignore      TYPE Successful-RL-InformationRespItem-RL-
SetupFailureFDD PRESENCE mandatory }
}

Successful-RL-InformationRespItem-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    rL-Set-ID                                   RL-Set-ID,
    received-total-wide-band-power              Received-total-wide-band-power-Value,
    diversityIndication                         DiversityIndication-RL-SetupFailureFDD,
    not-Used-dSCH-InformationResponseList       NULL                        OPTIONAL,
    not-Used-tFCI2-BearerInformationResponse    NULL                        OPTIONAL,
    sSDT-SupportIndicator                       SSDT-SupportIndicator,
```

```
    iE-Extensions                               ProtocolExtensionContainer { { Successful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs} }
    OPTIONAL,
    ...
}

Successful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-ActivationIndicator       CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator       PRESENCE optional
}|
    { ID id-E-DCH-RL-Set-ID                             CRITICALITY ignore  EXTENSION RL-Set-ID                                 PRESENCE optional
}|
    { ID id-E-DCH-FDD-DL-Control-Channel-Information    CRITICALITY ignore  EXTENSION E-DCH-FDD-DL-Control-Channel-Information    PRESENCE optional
}|
    { ID id-Initial-DL-DPCH-TimingAdjustment            CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment                  PRESENCE optional
},
    ...
}

DiversityIndication-RL-SetupFailureFDD ::= CHOICE {
    combining                                   Combining-RL-SetupFailureFDD,
    nonCombiningOrFirstRL                       NonCombiningOrFirstRL-RL-SetupFailureFDD
}

Combining-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    iE-Extensions                               ProtocolExtensionContainer { { CombiningItem-RL-SetupFailureFDD-ExtIEs} }   OPTIONAL,
    ...
 }

CombiningItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NonCombiningOrFirstRL-RL-SetupFailureFDD ::= SEQUENCE {
    dCH-InformationResponse                     DCH-InformationResponse,
    iE-Extensions                                   ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs} }
    OPTIONAL,
    ...
}

NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-FDD-Information-Response      CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response          PRESENCE optional },
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP FAILURE TDD
--
-- **************************************************************

RadioLinkSetupFailureTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkSetupFailureTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkSetupFailureTDD-Extensions}}                     OPTIONAL,
    ...
```

```
}

RadioLinkSetupFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID          CRITICALITY ignore  TYPE CRNC-CommunicationContextID             PRESENCE mandatory   }|
    { ID    id-CauseLevel-RL-SetupFailureTDD        CRITICALITY ignore  TYPE CauseLevel-RL-SetupFailureTDD           PRESENCE mandatory   }|
    { ID    id-CriticalityDiagnostics               CRITICALITY ignore  TYPE CriticalityDiagnostics                 PRESENCE optional },
    ...
}

RadioLinkSetupFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CauseLevel-RL-SetupFailureTDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-SetupFailureTDD,
    rLSpecificCause     RLSpecificCauseList-RL-SetupFailureTDD,
    ...
}

GeneralCauseList-RL-SetupFailureTDD ::= SEQUENCE {
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureTDD-ExtIEs} }          OPTIONAL,
    ...
}

GeneralCauseItem-RL-SetupFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-SetupFailureTDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD  Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD,
    iE-Extensions                                           ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs} }
    OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD}
}

Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD  CRITICALITY ignore  TYPE Unsuccessful-RL-InformationResp-RL-SetupFailureTDD
    PRESENCE mandatory  }
}

Unsuccessful-RL-InformationResp-RL-SetupFailureTDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    cause                           Cause,
    iE-Extensions                   ProtocolExtensionContainer { { Unsuccessful-RL-InformationResp-RL-SetupFailureTDD-ExtIEs} }     OPTIONAL,
    ...
}
```

```
Unsuccessful-RL-InformationResp-RL-SetupFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION REQUEST FDD
--
-- **************************************************************

RadioLinkAdditionRequestFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkAdditionRequestFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkAdditionRequestFDD-Extensions}}                      OPTIONAL,
    ...
}

RadioLinkAdditionRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID            CRITICALITY reject  TYPE NodeB-CommunicationContextID            PRESENCE mandatory   } |
    { ID id-Compressed-Mode-Deactivation-Flag        CRITICALITY reject  TYPE Compressed-Mode-Deactivation-Flag        PRESENCE optional }|
    { ID id-RL-InformationList-RL-AdditionRqstFDD   CRITICALITY notify  TYPE RL-InformationList-RL-AdditionRqstFDD    PRESENCE mandatory   },
    ...
}

RadioLinkAdditionRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Initial-DL-DPCH-TimingAdjustment-Allowed        CRITICALITY ignore  EXTENSION Initial-DL-DPCH-TimingAdjustment-Allowed
    PRESENCE optional }|
    { ID id-Serving-E-DCH-RL-ID                     CRITICALITY reject  EXTENSION Serving-E-DCH-RL-ID                    PRESENCE optional }|
    { ID id-Serving-Cell-Change-CFN                 CRITICALITY reject  EXTENSION CFN                                   PRESENCE optional }|
    { ID id-HS-DSCH-Serving-Cell-Change-Info        CRITICALITY reject  EXTENSION HS-DSCH-Serving-Cell-Change-Info       PRESENCE optional }|
    { ID id-E-DPCH-Information-RL-AdditionReqFDD    CRITICALITY reject  EXTENSION E-DPCH-Information-RL-AdditionReqFDD   PRESENCE optional }|
    { ID id-E-DCH-FDD-Information                   CRITICALITY reject  EXTENSION E-DCH-FDD-Information                  PRESENCE conditional },
    -- This IE shall be present if E-DPCH Information is present
    ...
}

RL-InformationList-RL-AdditionRqstFDD   ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-RL-
AdditionRqstFDD}}

RL-InformationItemIE-RL-AdditionRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-AdditionRqstFDD   CRITICALITY notify  TYPE RL-InformationItem-RL-AdditionRqstFDD       PRESENCE mandatory}
}

RL-InformationItem-RL-AdditionRqstFDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    c-ID                                    C-ID,
    frameOffset                             FrameOffset,
    chipOffset                              ChipOffset,
    diversityControlField                   DiversityControlField,
    dl-CodeInformation                      FDD-DL-CodeInformation,
    initialDL-TransmissionPower             DL-Power                        OPTIONAL,
    maximumDL-Power                         DL-Power                        OPTIONAL,
    minimumDL-Power                         DL-Power                        OPTIONAL,
    not-Used-sSDT-CellIdentity              NULL                            OPTIONAL,
```

```
    transmitDiversityIndicator                  TransmitDiversityIndicator      OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { RL-InformationItem-RL-AdditionRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

RL-InformationItem-RL-AdditionRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DLReferencePower                            CRITICALITY ignore  EXTENSION DL-Power                                  PRESENCE optional
}|
    { ID id-RL-Specific-DCH-Info                        CRITICALITY ignore  EXTENSION RL-Specific-DCH-Info                      PRESENCE optional
}|
    { ID id-DelayedActivation                           CRITICALITY reject  EXTENSION DelayedActivation                         PRESENCE optional
}|
    { ID id-E-DCH-RL-Indication                         CRITICALITY reject  EXTENSION E-DCH-RL-Indication                       PRESENCE optional
}|
    { ID id-RL-Specific-E-DCH-Info                      CRITICALITY ignore  EXTENSION RL-Specific-E-DCH-Info                    PRESENCE optional
}|
    { ID id-SynchronisationIndicator                    CRITICALITY ignore  EXTENSION SynchronisationIndicator                  PRESENCE optional
}|
    { ID id-F-DPCH-SlotFormat                           CRITICALITY reject  EXTENSION F-DPCH-SlotFormat                         PRESENCE optional
},
    ...
}

E-DPCH-Information-RL-AdditionReqFDD ::= SEQUENCE {
    maxSet-E-DPDCHs                             Max-Set-E-DPDCHs,
    ul-PunctureLimit                            PunctureLimit,
    e-TFCS-Information                          E-TFCS-Information,
    e-TTI                                       E-TTI,
    e-DPCCH-PO                                  E-DPCCH-PO,
    e-RGCH-2-IndexStepThreshold                 E-RGCH-2-IndexStepThreshold,
    e-RGCH-3-IndexStepThreshold                 E-RGCH-3-IndexStepThreshold,
    hARQ-Info-for-E-DCH                         HARQ-Info-for-E-DCH,
    iE-Extensions                               ProtocolExtensionContainer { { E-DPCH-Information-RL-AdditionReqFDD-ExtIEs} }     OPTIONAL,
    ...
}

E-DPCH-Information-RL-AdditionReqFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-Configured-Indicator     CRITICALITY reject  EXTENSION   HSDSCH-Configured-Indicator              PRESENCE mandatory },
    -- This shall be present for EDPCH configuration with HSDCH
    ...
}


-- **************************************************************
--
-- RADIO LINK ADDITION REQUEST TDD
--
-- **************************************************************

RadioLinkAdditionRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkAdditionRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkAdditionRequestTDD-Extensions}}                  OPTIONAL,
    ...
}
```

```
RadioLinkAdditionRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID                    CRITICALITY reject  TYPE NodeB-CommunicationContextID                 PRESENCE
mandatory }|
    { ID id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD    CRITICALITY reject  TYPE UL-CCTrCH-InformationList-RL-AdditionRqstTDD PRESENCE optional
}|
    { ID id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD    CRITICALITY reject  TYPE DL-CCTrCH-InformationList-RL-AdditionRqstTDD PRESENCE optional
}|
    { ID id-RL-Information-RL-AdditionRqstTDD               CRITICALITY reject  TYPE RL-Information-RL-AdditionRqstTDD           PRESENCE
mandatory },
    ...
}

RadioLinkAdditionRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-TDD-Information          CRITICALITY reject      EXTENSION HSDSCH-TDD-Information              PRESENCE optional }|
    { ID id-HSDSCH-RNTI                     CRITICALITY reject      EXTENSION HSDSCH-RNTI                         PRESENCE conditional }|
    -- The IE shall be present if HS-PDSCH RL ID IE is present.
    { ID id-HSPDSCH-RL-ID                   CRITICALITY reject      EXTENSION RL-ID                               PRESENCE optional }|
    { ID id-E-DCH-Information               CRITICALITY reject      EXTENSION E-DCH-Information                   PRESENCE optional }|
    { ID id-E-DCH-Serving-RL-ID             CRITICALITY reject      EXTENSION RL-ID                               PRESENCE optional }|
    { ID id-E-DCH-768-Information           CRITICALITY reject      EXTENSION E-DCH-768-Information               PRESENCE optional }|
    { ID id-E-DCH-LCR-Information           CRITICALITY reject      EXTENSION E-DCH-LCR-Information               PRESENCE optional }|
    { ID id-PowerControlGAP                 CRITICALITY ignore      EXTENSION ControlGAP                          PRESENCE optional },
     -- Applicable to 1.28Mcps TDD only
    ...
}

UL-CCTrCH-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-RL-AdditionRqstTDD

UL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
    cCTrCH-ID                                   CCTrCH-ID,
    uL-DPCH-Information                         UL-DPCH-InformationList-RL-AdditionRqstTDD      OPTIONAL, -- Applicable to 3.84cps TDD only
    iE-Extensions                               ProtocolExtensionContainer { { UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD  CRITICALITY notify  EXTENSION UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD
    PRESENCE    optional }| -- Applicable to 1.28cps TDD only
    { ID id-TDD-TPC-UplinkStepSize-LCR-RL-AdditionRqstTDD   CRITICALITY reject  EXTENSION TDD-TPC-UplinkStepSize-LCR  PRESENCE optional }|--
Applicable to 1.28cps TDD only
    { ID id-UL-DPCH-InformationItem-768-RL-AdditionRqstTDD  CRITICALITY notify  EXTENSION UL-DPCH-InformationItem-768-RL-AdditionRqstTDD
    PRESENCE    optional }, -- Applicable to 7.68Mcps TDD only
    ...
}

UL-DPCH-InformationList-RL-AdditionRqstTDD ::= ProtocolIE-Single-Container {{ UL-DPCH-InformationItemIE-RL-AdditionRqstTDD }}

UL-DPCH-InformationItemIE-RL-AdditionRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-RL-AdditionRqstTDD  CRITICALITY notify  TYPE UL-DPCH-InformationItem-RL-AdditionRqstTDD PRESENCE optional }
    -- For 3.84Mcps TDD only
}

UL-DPCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
```

```
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-Timeslot-Information                 UL-Timeslot-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

UL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-TimeslotLCR-Information              UL-TimeslotLCR-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationItem-768-RL-AdditionRqstTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-Timeslot768-Information              UL-Timeslot768-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-InformationItem-768-RL-AdditionRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

UL-DPCH-InformationItem-768-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-AdditionRqstTDD

DL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
    cCTrCH-ID                       CCTrCH-ID,
    dL-DPCH-Information              DL-DPCH-InformationList-RL-AdditionRqstTDD      OPTIONAL,   -- Applicable to 3.84Mcps TDD only
    iE-Extensions                   ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD   CRITICALITY notify      EXTENSION DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD
        PRESENCE    optional }| -- Applicable to 1.28Mcps TDD only
    { ID id-CCTrCH-Initial-DL-Power-RL-AdditionRqstTDD          CRITICALITY ignore      EXTENSION DL-Power                  PRESENCE optional }|
    { ID id-TDD-TPC-DownlinkStepSize-RL-AdditionRqstTDD         CRITICALITY reject      EXTENSION TDD-TPC-DownlinkStepSize  PRESENCE optional }|
    { ID id-CCTrCH-Maximum-DL-Power-RL-AdditionRqstTDD          CRITICALITY ignore      EXTENSION DL-Power                  PRESENCE optional }|
    { ID id-CCTrCH-Minimum-DL-Power-RL-AdditionRqstTDD          CRITICALITY ignore      EXTENSION DL-Power                  PRESENCE optional }|
```

```
    { ID    id-DL-DPCH-InformationItem-768-RL-AdditionRqstTDD   CRITICALITY notify      EXTENSION DL-DPCH-InformationItem-768-RL-AdditionRqstTDD
        PRESENCE    optional }, -- Applicable to 7.68Mcps TDD only
    ...
}

DL-DPCH-InformationList-RL-AdditionRqstTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationItemIE-RL-AdditionRqstTDD }}

DL-DPCH-InformationItemIE-RL-AdditionRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-RL-AdditionRqstTDD  CRITICALITY notify  TYPE DL-DPCH-InformationItem-RL-AdditionRqstTDD    PRESENCE mandatory }
}

DL-DPCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    dL-Timeslot-Information                 DL-Timeslot-Information,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} }      OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    dL-TimeslotLCR-Information              DL-TimeslotLCR-Information,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationItem-768-RL-AdditionRqstTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    dL-Timeslot768-Information              DL-Timeslot768-Information,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-InformationItem-768-RL-AdditionRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

DL-DPCH-InformationItem-768-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Information-RL-AdditionRqstTDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    c-ID                                    C-ID,
    frameOffset                             FrameOffset,
```

```
    diversityControlField                       DiversityControlField,
    initial-DL-Transmission-Power               DL-Power            OPTIONAL,
    maximumDL-Power                             DL-Power            OPTIONAL,
    minimumDL-Power                             DL-Power            OPTIONAL,
    dL-TimeSlotISCPInfo                         DL-TimeslotISCPInfo OPTIONAL,   -- Applicable to 3.84Mcps TDD and 7.68Mcps TDD only
    iE-Extensions                               ProtocolExtensionContainer { { RL-information-RL-AdditionRqstTDD-ExtIEs} }        OPTIONAL,
    ...
 }

RL-information-RL-AdditionRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TimeslotISCP-InformationList-LCR-RL-AdditionRqstTDD CRITICALITY reject  EXTENSION DL-TimeslotISCPInfoLCR        PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-RL-Specific-DCH-Info                                CRITICALITY ignore  EXTENSION RL-Specific-DCH-Info    PRESENCE    optional }|
    { ID id-DelayedActivation                                   CRITICALITY reject  EXTENSION DelayedActivation PRESENCE optional }|
    { ID id-UL-Synchronisation-Parameters-LCR                   CRITICALITY reject  EXTENSION UL-Synchronisation-Parameters-LCR   PRESENCE
    optional }| -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-UARFCNforNt                                         CRITICALITY reject  EXTENSION UARFCN                  PRESENCE optional },
      -- Mandatory for 1.28Mcps TDD when using multiple frequencies
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION RESPONSE FDD
--
-- **************************************************************

RadioLinkAdditionResponseFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkAdditionResponseFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkAdditionResponseFDD-Extensions}}                     OPTIONAL,
    ...
}

RadioLinkAdditionResponseFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID                     CRITICALITY ignore  TYPE CRNC-CommunicationContextID                  PRESENCE
mandatory }|
    { ID id-RL-InformationResponseList-RL-AdditionRspFDD    CRITICALITY ignore  TYPE RL-InformationResponseList-RL-AdditionRspFDD PRESENCE
mandatory }|
    { ID id-CriticalityDiagnostics                          CRITICALITY ignore  TYPE CriticalityDiagnostics                       PRESENCE optional
},
    ...
}

RadioLinkAdditionResponseFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
{ ID id-HS-DSCH-Serving-Cell-Change-Info-Response           CRITICALITY ignore  EXTENSION HS-DSCH-Serving-Cell-Change-Info-Response
    PRESENCE optional }|
{ ID id-E-DCH-Serving-Cell-Change-Info-Response             CRITICALITY ignore  EXTENSION E-DCH-Serving-Cell-Change-Info-Response
    PRESENCE optional }|
{ ID id-MAChs-ResetIndicator                                CRITICALITY ignore  EXTENSION MAChs-ResetIndicator
    PRESENCE optional },
    ...
}
```

```
RL-InformationResponseList-RL-AdditionRspFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container {{ RL-InformationResponseItemIE-
RL-AdditionRspFDD }}

RL-InformationResponseItemIE-RL-AdditionRspFDD NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-AdditionRspFDD    CRITICALITY ignore  TYPE RL-InformationResponseItem-RL-AdditionRspFDD PRESENCE
mandatory }
}

RL-InformationResponseItem-RL-AdditionRspFDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    rL-Set-ID                           RL-Set-ID,
    received-total-wide-band-power      Received-total-wide-band-power-Value,
    diversityIndication                 DiversityIndication-RL-AdditionRspFDD,
    sSDT-SupportIndicator               SSDT-SupportIndicator,
    iE-Extensions                       ProtocolExtensionContainer { { RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs} }     OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-ActivationIndicator       CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator       PRESENCE optional
}|
    { ID id-E-DCH-RL-Set-ID                             CRITICALITY ignore  EXTENSION RL-Set-ID                                  PRESENCE optional
}|
    { ID id-E-DCH-FDD-DL-Control-Channel-Information    CRITICALITY ignore  EXTENSION E-DCH-FDD-DL-Control-Channel-Information    PRESENCE optional
}|
    { ID id-Initial-DL-DPCH-TimingAdjustment            CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment                   PRESENCE optional
},
    ...
}

DiversityIndication-RL-AdditionRspFDD ::= CHOICE {
    combining                                   Combining-RL-AdditionRspFDD,
    non-combining                               Non-Combining-RL-AdditionRspFDD
}

Combining-RL-AdditionRspFDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    iE-Extensions                               ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspFDD-ExtIEs} }   OPTIONAL,
    ...
}

CombiningItem-RL-AdditionRspFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-FDD-Information-Response              CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response           PRESENCE optional },
    ...
}

Non-Combining-RL-AdditionRspFDD ::= SEQUENCE {
    dCH-InformationResponse                     DCH-InformationResponse,
    iE-Extensions                               ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionRspFDD-ExtIEs} }   OPTIONAL,
    ...
}

Non-CombiningItem-RL-AdditionRspFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-FDD-Information-Response              CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response           PRESENCE optional },
```

```
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION RESPONSE TDD
--
-- **************************************************************

RadioLinkAdditionResponseTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkAdditionResponseTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkAdditionResponseTDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkAdditionResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID                 CRITICALITY ignore  TYPE CRNC-CommunicationContextID                      PRESENCE
mandatory   }|
    { ID id-RL-InformationResponse-RL-AdditionRspTDD    CRITICALITY ignore  TYPE RL-InformationResponse-RL-AdditionRspTDD         PRESENCE optional
    }|      -- Mandatory for 3.84Mcps TDD and 7.68Mcps TDD, Not Applicable to 1.28Mcps TDD
    { ID id-CriticalityDiagnostics                      CRITICALITY ignore  TYPE CriticalityDiagnostics                        PRESENCE optional
    },
    ...
}

RadioLinkAdditionResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-InformationResponse-LCR-RL-AdditionRspTDD        CRITICALITY ignore          EXTENSION RL-InformationResponse-LCR-RL-AdditionRspTDD
    PRESENCE optional }|    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-HSDSCH-TDD-Information-Response                     CRITICALITY ignore          EXTENSION HSDSCH-TDD-Information-Response
    PRESENCE optional}|
    { ID id-E-DCH-Information-Response                          CRITICALITY ignore          EXTENSION E-DCH-Information-Response
    PRESENCE optional   },
    ...
}

RL-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    uL-TimeSlot-ISCP-Info                   UL-TimeSlot-ISCP-Info,
    ul-PhysCH-SF-Variation                  UL-PhysCH-SF-Variation,
    dCH-Information                         DCH-Information-RL-AdditionRspTDD                                   OPTIONAL,
    dSCH-InformationResponseList            DSCH-InformationResponseList-RL-AdditionRspTDD                      OPTIONAL,
    uSCH-InformationResponseList            USCH-InformationResponseList-RL-AdditionRspTDD                      OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationResponse-RL-AdditionRspTDD-ExtIEs} }    OPTIONAL,
    ...
}

RL-InformationResponse-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-Information-RL-AdditionRspTDD ::= SEQUENCE {
    diversityIndication             DiversityIndication-RL-AdditionRspTDD,
    iE-Extensions                   ProtocolExtensionContainer { { DCH-Information-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
```

```
}

DCH-Information-RL-AdditionRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-AdditionRspTDD ::= CHOICE {
    combining                               Combining-RL-AdditionRspTDD,    -- Indicates whether the old Transport Bearer shall be reused or
not
    non-Combining                           Non-Combining-RL-AdditionRspTDD
}

Combining-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                                   RL-ID,  -- Reference RL
    iE-Extensions                           ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspTDD-ExtIEs} }    OPTIONAL,
    ...
}

CombiningItem-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Non-Combining-RL-AdditionRspTDD ::= SEQUENCE {
    dCH-InformationResponse                 DCH-InformationResponse,
    iE-Extensions                           ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionRspTDD-ExtIEs} }      OPTIONAL,
    ...
}

Non-CombiningItem-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseListIEs-RL-AdditionRspTDD }}

DSCH-InformationResponseListIEs-RL-AdditionRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationResponse   CRITICALITY ignore   TYPE DSCH-InformationResponse       PRESENCE mandatory }
}

USCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{ USCH-InformationResponseListIEs-RL-AdditionRspTDD }}

USCH-InformationResponseListIEs-RL-AdditionRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationResponse   CRITICALITY ignore   TYPE USCH-InformationResponse       PRESENCE mandatory }
}

RL-InformationResponse-LCR-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    uL-TimeSlot-ISCP-InfoLCR                UL-TimeSlot-ISCP-LCR-Info,
    ul-PhysCH-SF-Variation                  UL-PhysCH-SF-Variation,
    dCH-Information                         DCH-Information-RL-AdditionRspTDD                                   OPTIONAL,
    dSCH-InformationResponseList            DSCH-InformationResponseList-RL-AdditionRspTDD                      OPTIONAL,
    uSCH-InformationResponseList            USCH-InformationResponseList-RL-AdditionRspTDD                      OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationResponse-LCR-RL-AdditionRspTDD-ExtIEs} }   OPTIONAL,
    ...
}
```

```
RL-InformationResponse-LCR-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION FAILURE FDD
--
-- **************************************************************

RadioLinkAdditionFailureFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkAdditionFailureFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkAdditionFailureFDD-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkAdditionFailureFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID             CRITICALITY ignore      TYPE CRNC-CommunicationContextID                  PRESENCE mandatory
}|
    { ID id-CauseLevel-RL-AdditionFailureFDD        CRITICALITY ignore      TYPE CauseLevel-RL-AdditionFailureFDD             PRESENCE mandatory
}|
    { ID id-CriticalityDiagnostics                  CRITICALITY ignore      TYPE CriticalityDiagnostics                       PRESENCE optional },
    ...
}

RadioLinkAdditionFailureFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
{ ID id-HS-DSCH-Serving-Cell-Change-Info-Response           CRITICALITY ignore  EXTENSION HS-DSCH-Serving-Cell-Change-Info-Response
    PRESENCE optional }|
{ ID id-E-DCH-Serving-Cell-Change-Info-Response             CRITICALITY ignore  EXTENSION E-DCH-Serving-Cell-Change-Info-Response
    PRESENCE optional },
    ...
}

CauseLevel-RL-AdditionFailureFDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-AdditionFailureFDD,
    rLSpecificCause     RLSpecificCauseList-RL-AdditionFailureFDD,
    ...
}

GeneralCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs} }      OPTIONAL,
    ...
}

GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD       Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD,
    successful-RL-InformationRespList-RL-AdditionFailureFDD         Successful-RL-InformationRespList-RL-AdditionFailureFDD             OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs} }      OPTIONAL,
```

```
    ...
}

RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD ::= SEQUENCE  (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container {{ Unsuccessful-RL-
InformationRespItemIE-RL-AdditionFailureFDD }}

Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD   CRITICALITY ignore  TYPE Unsuccessful-RL-InformationRespItem-RL-
AdditionFailureFDD  PRESENCE mandatory }
}

Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { { Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs} }      OPTIONAL,
    ...
}

Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Successful-RL-InformationRespList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-2)) OF ProtocolIE-Single-Container {{ Successful-RL-
InformationRespItemIE-RL-AdditionFailureFDD }}

Successful-RL-InformationRespItemIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD CRITICALITY ignore  TYPE Successful-RL-InformationRespItem-RL-
AdditionFailureFDD  PRESENCE mandatory }
}

Successful-RL-InformationRespItem-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    rL-Set-ID                               RL-Set-ID,
    received-total-wide-band-power          Received-total-wide-band-power-Value,
    diversityIndication                     DiversityIndication-RL-AdditionFailureFDD,
    sSDT-SupportIndicator                   SSDT-SupportIndicator,
    iE-Extensions                           ProtocolExtensionContainer { { Successful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs} }
    OPTIONAL,
    ...
}

Successful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-ActivationIndicator       CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator       PRESENCE optional
}|
    { ID id-E-DCH-RL-Set-ID                             CRITICALITY ignore  EXTENSION RL-Set-ID                               PRESENCE optional
}|
    { ID id-E-DCH-FDD-DL-Control-Channel-Information    CRITICALITY ignore  EXTENSION E-DCH-FDD-DL-Control-Channel-Information    PRESENCE optional
}|
    { ID id-Initial-DL-DPCH-TimingAdjustment            CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment                    PRESENCE optional
},
```

```
    ...
}

DiversityIndication-RL-AdditionFailureFDD ::= CHOICE {
    combining                       Combining-RL-AdditionFailureFDD,
    non-Combining                   Non-Combining-RL-AdditionFailureFDD
}

Combining-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    iE-Extensions                           ProtocolExtensionContainer { { CombiningItem-RL-AdditionFailureFDD-ExtIEs} }      OPTIONAL,
    ...
 }

CombiningItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-FDD-Information-Response              CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response           PRESENCE optional },
    ...
}

Non-Combining-RL-AdditionFailureFDD ::= SEQUENCE {
    dCH-InformationResponse                 DCH-InformationResponse,
    iE-Extensions                           ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionFailureFDD-ExtIEs} }        OPTIONAL,
    ...
}

Non-CombiningItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-FDD-Information-Response              CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response           PRESENCE optional },
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION FAILURE TDD
--
-- **************************************************************

RadioLinkAdditionFailureTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkAdditionFailureTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkAdditionFailureTDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkAdditionFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID              CRITICALITY ignore      TYPE CRNC-CommunicationContextID         PRESENCE mandatory }|
    { ID    id-CauseLevel-RL-AdditionFailureTDD         CRITICALITY ignore      TYPE CauseLevel-RL-AdditionFailureTDD    PRESENCE mandatory }|
    { ID    id-CriticalityDiagnostics                   CRITICALITY ignore      TYPE CriticalityDiagnostics              PRESENCE optional },
    ...
}

RadioLinkAdditionFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CauseLevel-RL-AdditionFailureTDD ::= CHOICE {
```

```
    generalCause        GeneralCauseList-RL-AdditionFailureTDD,
    rLSpecificCause     RLSpecificCauseList-RL-AdditionFailureTDD,
    ...
}

GeneralCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs} }       OPTIONAL,
    ...
}

GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD   Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD,
    iE-Extensions                                               ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs} }
        OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-
AdditionFailureTDD} }

Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD   CRITICALITY ignore  TYPE Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD
    PRESENCE mandatory }
}

Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { { Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD-ExtIEs} }   OPTIONAL,
    ...
}

Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION PREPARE FDD
--
-- **************************************************************

RadioLinkReconfigurationPrepareFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkReconfigurationPrepareFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationPrepareFDD-Extensions}}             OPTIONAL,
```

```
    ...
}

RadioLinkReconfigurationPrepareFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID                    CRITICALITY reject  TYPE NodeB-CommunicationContextID                    PRESENCE
mandatory }|
    { ID id-UL-DPCH-Information-RL-ReconfPrepFDD            CRITICALITY reject  TYPE UL-DPCH-Information-RL-ReconfPrepFDD            PRESENCE
optional }|
    { ID id-DL-DPCH-Information-RL-ReconfPrepFDD            CRITICALITY reject  TYPE DL-DPCH-Information-RL-ReconfPrepFDD            PRESENCE
optional }|
    { ID id-FDD-DCHs-to-Modify                              CRITICALITY reject  TYPE FDD-DCHs-to-Modify                              PRESENCE
optional }|
    { ID id-DCHs-to-Add-FDD                                 CRITICALITY reject  TYPE DCH-FDD-Information                             PRESENCE
optional }|
    { ID id-DCH-DeleteList-RL-ReconfPrepFDD                 CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfPrepFDD                 PRESENCE
optional }|
    { ID id-RL-InformationList-RL-ReconfPrepFDD             CRITICALITY reject  TYPE RL-InformationList-RL-ReconfPrepFDD             PRESENCE
optional }|
    { ID id-Transmission-Gap-Pattern-Sequence-Information   CRITICALITY reject  TYPE Transmission-Gap-Pattern-Sequence-Information   PRESENCE
optional },
    ...
}

RadioLinkReconfigurationPrepareFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-SignallingBearerRequestIndicator        CRITICALITY reject  EXTENSION SignallingBearerRequestIndicator          PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information                  CRITICALITY reject  EXTENSION HSDSCH-FDD-Information                  PRESENCE optional }|
    { ID id-HSDSCH-Information-to-Modify            CRITICALITY reject  EXTENSION HSDSCH-Information-to-Modify            PRESENCE optional }|
    { ID id-HSDSCH-MACdFlows-to-Add                 CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-Information            PRESENCE optional }|
    { ID id-HSDSCH-MACdFlows-to-Delete              CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-to-Delete              PRESENCE optional }|
    { ID id-HSDSCH-RNTI                             CRITICALITY reject  EXTENSION HSDSCH-RNTI                             PRESENCE conditional }|
    -- The IE shall be present if HS-PDSCH RL ID IE is present.
    { ID id-HSPDSCH-RL-ID                           CRITICALITY reject  EXTENSION RL-ID                                   PRESENCE optional }|
    { ID id-E-DPCH-Information-RL-ReconfPrepFDD     CRITICALITY reject  EXTENSION E-DPCH-Information-RL-ReconfPrepFDD     PRESENCE optional }|
    { ID id-E-DCH-FDD-Information                   CRITICALITY reject  EXTENSION E-DCH-FDD-Information                   PRESENCE optional }|
    { ID id-E-DCH-FDD-Information-to-Modify         CRITICALITY reject  EXTENSION E-DCH-FDD-Information-to-Modify         PRESENCE optional }|
    { ID id-E-DCH-MACdFlows-to-Add                  CRITICALITY reject  EXTENSION E-DCH-MACdFlows-Information             PRESENCE optional }|
    { ID id-E-DCH-MACdFlows-to-Delete               CRITICALITY reject  EXTENSION E-DCH-MACdFlows-to-Delete               PRESENCE optional }|
    { ID id-Serving-E-DCH-RL-ID                     CRITICALITY reject  EXTENSION Serving-E-DCH-RL-ID                     PRESENCE optional }|
    { ID id-F-DPCH-Information-RL-ReconfPrepFDD     CRITICALITY reject  EXTENSION F-DPCH-Information-RL-ReconfPrepFDD     PRESENCE optional }|
    { ID id-Fast-Reconfiguration-Mode               CRITICALITY ignore  EXTENSION Fast-Reconfiguration-Mode               PRESENCE optional }|
    { ID id-CPC-Information                         CRITICALITY reject  EXTENSION CPC-Information                         PRESENCE optional },
    ...
}

UL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    ul-ScramblingCode                       UL-ScramblingCode               OPTIONAL,
    ul-SIR-Target                           UL-SIR                          OPTIONAL,
    minUL-ChannelisationCodeLength          MinUL-ChannelisationCodeLength  OPTIONAL,
    maxNrOfUL-DPDCHs                        MaxNrOfUL-DPDCHs                OPTIONAL,
    -- This IE shall be present if minUL-ChannelisationCodeLength Ie is set to 4
    ul-PunctureLimit                        PunctureLimit                   OPTIONAL,
    tFCS                                    TFCS                            OPTIONAL,
    ul-DPCCH-SlotFormat                     UL-DPCCH-SlotFormat             OPTIONAL,
    diversityMode                           DiversityMode                   OPTIONAL,
```

```
    not-Used-sSDT-CellIDLength                  NULL                                    OPTIONAL,
    not-Used-s-FieldLength                      NULL                                    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} }    OPTIONAL,
    ...
}

UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPDCH-Indicator-For-E-DCH-Operation  CRITICALITY reject  EXTENSION UL-DPDCH-Indicator-For-E-DCH-Operation       PRESENCE optional },
    ...
}

DL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    tFCS                                        TFCS                                    OPTIONAL,
    dl-DPCH-SlotFormat                          DL-DPCH-SlotFormat                      OPTIONAL,
    tFCI-SignallingMode                         TFCI-SignallingMode                     OPTIONAL,
    tFCI-Presence                               TFCI-Presence                           OPTIONAL,
    -- This IE shall be present if the DL DPCH Slot Format IE is set to any of the values from 12 to 16
    multiplexingPosition                        MultiplexingPosition                    OPTIONAL,
    not-Used-pDSCH-CodeMapping                  NULL                                    OPTIONAL,
    not-Used-pDSCH-RL-ID                        NULL                                    OPTIONAL,
    limitedPowerIncrease                        LimitedPowerIncrease                    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} }    OPTIONAL,
    ...
}

DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-Power-Information-RL-ReconfPrepFDD  CRITICALITY reject  EXTENSION DL-DPCH-Power-Information-RL-ReconfPrepFDD  PRESENCE optional
},
    ...
}

DL-DPCH-Power-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    powerOffsetInformation                  PowerOffsetInformation-RL-ReconfPrepFDD,
    fdd-TPC-DownlinkStepSize                FDD-TPC-DownlinkStepSize,
    innerLoopDLPCStatus                     InnerLoopDLPCStatus,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-Power-Information-RL-ReconfPrepFDD-ExtIEs } }        OPTIONAL,
    ...
}

DL-DPCH-Power-Information-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerOffsetInformation-RL-ReconfPrepFDD ::= SEQUENCE {
    pO1-ForTFCI-Bits                        PowerOffset,
    pO2-ForTPC-Bits                         PowerOffset,
    pO3-ForPilotBits                        PowerOffset,
    iE-Extensions                           ProtocolExtensionContainer { { PowerOffsetInformation-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
    ...
}

PowerOffsetInformation-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
DCH-DeleteList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepFDD

DCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dCH-ID                                  DCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-RL-ReconfPrepFDD }}

RL-InformationItemIE-RL-ReconfPrepFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-RL-InformationItem-RL-ReconfPrepFDD          CRITICALITY     reject          TYPE                    RL-InformationItem-RL-
ReconfPrepFDD       PRESENCE    mandatory}
}

RL-InformationItem-RL-ReconfPrepFDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    dl-CodeInformation                      FDD-DL-CodeInformation                  OPTIONAL,
    maxDL-Power                             DL-Power                                OPTIONAL,
    minDL-Power                             DL-Power                                OPTIONAL,
    not-Used-sSDT-Indication                NULL                                    OPTIONAL,
    not-Used-sSDT-Cell-Identity             NULL                                    OPTIONAL,
    transmitDiversityIndicator              TransmitDiversityIndicator              OPTIONAL,
    -- This IE shall be present if Diversity Mode IE is present in UL DPCH Information IE and it is not set to 'none'
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfPrepFDD-ExtIEs} }     OPTIONAL,
    ...
}

RL-InformationItem-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DLReferencePower                    CRITICALITY ignore  EXTENSION DL-Power                                  PRESENCE optional }|
    { ID id-RL-Specific-DCH-Info                CRITICALITY ignore  EXTENSION RL-Specific-DCH-Info                      PRESENCE optional }|
    { ID id-DL-DPCH-TimingAdjustment            CRITICALITY reject  EXTENSION DL-DPCH-TimingAdjustment                  PRESENCE optional }|
    { ID id-Primary-CPICH-Usage-for-Channel-Estimation      CRITICALITY ignore  EXTENSION Primary-CPICH-Usage-for-Channel-Estimation
    PRESENCE optional}|
    { ID id-Secondary-CPICH-Information-Change   CRITICALITY ignore  EXTENSION Secondary-CPICH-Information-Change       PRESENCE optional }|
    { ID id-E-DCH-RL-Indication                 CRITICALITY reject  EXTENSION E-DCH-RL-Indication                       PRESENCE optional }|
    { ID id-RL-Specific-E-DCH-Info              CRITICALITY ignore  EXTENSION RL-Specific-E-DCH-Info                    PRESENCE optional }|
    { ID id-F-DPCH-SlotFormat                   CRITICALITY reject  EXTENSION F-DPCH-SlotFormat                         PRESENCE optional },
    ...
}

E-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    maxSet-E-DPDCHs                         Max-Set-E-DPDCHs                                                            OPTIONAL,
    ul-PunctureLimit                        PunctureLimit                                                               OPTIONAL,
    e-TFCS-Information                      E-TFCS-Information                                                          OPTIONAL,
    e-TTI                                   E-TTI                                                                       OPTIONAL,
    e-DPCCH-PO                              E-DPCCH-PO                                                                  OPTIONAL,
    e-RGCH-2-IndexStepThreshold             E-RGCH-2-IndexStepThreshold                                                 OPTIONAL,
    e-RGCH-3-IndexStepThreshold             E-RGCH-3-IndexStepThreshold                                                 OPTIONAL,
```

```
    hARQ-Info-for-E-DCH                     HARQ-Info-for-E-DCH                                                 OPTIONAL,
    hSDSCH-Configured-Indicator             HSDSCH-Configured-Indicator                                         OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { E-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
    ...
}

E-DPCH-Information-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

F-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    powerOffsetInformation              PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD,
    fdd-TPC-DownlinkStepSize            FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease                LimitedPowerIncrease,
    innerLoopDLPCStatus                 InnerLoopDLPCStatus,
    iE-Extensions                       ProtocolExtensionContainer { { F-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} }              OPTIONAL,
    ...
}

F-DPCH-Information-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD ::= SEQUENCE {
    pO2-ForTPC-Bits                     PowerOffset,
    -- This IE shall be ignored by Node B
    iE-Extensions                       ProtocolExtensionContainer { { PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
    ...
}

PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION PREPARE TDD
--
-- **************************************************************

RadioLinkReconfigurationPrepareTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkReconfigurationPrepareTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationPrepareTDD-Extensions}}            OPTIONAL,
    ...
}

RadioLinkReconfigurationPrepareTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID                        CRITICALITY reject  TYPE NodeB-CommunicationContextID          PRESENCE mandatory
}|
    { ID id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD       CRITICALITY reject  TYPE UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
    PRESENCE optional }|
    { ID id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD    CRITICALITY reject  TYPE UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
    PRESENCE optional }|
```

```
    { ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD    CRITICALITY reject  TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
    PRESENCE optional }|
    { ID id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD       CRITICALITY reject  TYPE DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
    PRESENCE optional }|
    { ID id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD    CRITICALITY reject  TYPE DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
    PRESENCE optional }|
    { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD    CRITICALITY reject  TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
    PRESENCE optional }|
    { ID id-TDD-DCHs-to-Modify                                  CRITICALITY reject  TYPE TDD-DCHs-to-Modify                    PRESENCE optional }|
    { ID id-DCHs-to-Add-TDD                                     CRITICALITY reject  TYPE DCH-TDD-Information                   PRESENCE optional }|
    { ID id-DCH-DeleteList-RL-ReconfPrepTDD                     CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfPrepTDD       PRESENCE optional }|
    { ID id-DSCH-Information-ModifyList-RL-ReconfPrepTDD        CRITICALITY reject  TYPE DSCH-Information-ModifyList-RL-ReconfPrepTDD
    PRESENCE optional }|
    { ID id-DSCHs-to-Add-TDD                                    CRITICALITY reject  TYPE DSCH-TDD-Information                  PRESENCE optional }|
    { ID id-DSCH-Information-DeleteList-RL-ReconfPrepTDD        CRITICALITY reject  TYPE DSCH-Information-DeleteList-RL-ReconfPrepTDD
    PRESENCE optional }|
    { ID id-USCH-Information-ModifyList-RL-ReconfPrepTDD        CRITICALITY reject  TYPE USCH-Information-ModifyList-RL-ReconfPrepTDD
    PRESENCE optional }|
    { ID id-USCH-Information-Add                                CRITICALITY reject  TYPE USCH-Information                      PRESENCE optional }|
    { ID id-USCH-Information-DeleteList-RL-ReconfPrepTDD        CRITICALITY reject  TYPE USCH-Information-DeleteList-RL-ReconfPrepTDD
    PRESENCE optional }|
    { ID id-RL-Information-RL-ReconfPrepTDD                     CRITICALITY reject  TYPE RL-Information-RL-ReconfPrepTDD       PRESENCE optional },
-- This RL Information is the for the 1st RL IE repetition
    ...
}

RadioLinkReconfigurationPrepareTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-SignallingBearerRequestIndicator     CRITICALITY reject  EXTENSION SignallingBearerRequestIndicator          PRESENCE optional }|
    { ID    id-HSDSCH-TDD-Information               CRITICALITY reject  EXTENSION HSDSCH-TDD-Information                PRESENCE optional }|
    { ID    id-HSDSCH-Information-to-Modify         CRITICALITY reject  EXTENSION HSDSCH-Information-to-Modify          PRESENCE optional }|
    { ID    id-HSDSCH-MACdFlows-to-Add              CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-Information          PRESENCE optional }|
    { ID    id-HSDSCH-MACdFlows-to-Delete           CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-to-Delete            PRESENCE optional }|
    { ID    id-HSDSCH-RNTI                          CRITICALITY reject  EXTENSION HSDSCH-RNTI                          PRESENCE conditional }|
    -- The IE shall be present if HS-PDSCH RL ID IE is present.
    { ID    id-HSPDSCH-RL-ID                        CRITICALITY reject  EXTENSION RL-ID                                PRESENCE optional }|
    { ID    id-PDSCH-RL-ID                          CRITICALITY ignore  EXTENSION RL-ID                                PRESENCE optional }|
    { ID    id-multiple-RL-Information-RL-ReconfPrepTDD     CRITICALITY reject  EXTENSION MultipleRL-Information-RL-ReconfPrepTDD    PRESENCE
optional    }|
-- This RL Information is the for the 2nd and beyond repetition of RL information,
    { ID id-E-DCH-Information-Reconfig              CRITICALITY reject  EXTENSION E-DCH-Information-Reconfig            PRESENCE optional }|
    { ID id-E-DCH-Serving-RL-ID                     CRITICALITY reject  EXTENSION RL-ID                                PRESENCE optional }|
    { ID id-E-DCH-768-Information-Reconfig          CRITICALITY reject  EXTENSION E-DCH-768-Information-Reconfig        PRESENCE optional }|
    { ID id-E-DCH-LCR-Information-Reconfig          CRITICALITY reject  EXTENSION E-DCH-LCR-Information-Reconfig        PRESENCE optional },
    ...
}

UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD

UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                                   CCTrCH-ID,
    tFCS                                        TFCS,
    tFCI-Coding                                 TFCI-Coding,
    punctureLimit                               PunctureLimit,
    ul-DPCH-InformationList                     UL-DPCH-InformationAddList-RL-ReconfPrepTDD OPTIONAL,
```

```
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
InformationAddList-RL-ReconfPrepTDD
    iE-Extensions                               ProtocolExtensionContainer { { UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfPrepTDD   CRITICALITY reject  EXTENSION UL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD
    PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
InformationAddList-RL-ReconfPrepTDD
    { ID id-UL-SIRTarget                                    CRITICALITY reject  EXTENSION UL-SIR               PRESENCE optional }|
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.
-- This Information is the for the first RL repetition, SIR Target information for RL repetitions 2 and on, should be defined in MultipleRL-UL-
DPCH-InformationAddList-RL-ReconfPrepTDD
    { ID id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD  CRITICALITY reject  EXTENSION TDD-TPC-UplinkStepSize-LCR  PRESENCE optional
    }|
-- This Information is the for the first RL repetition, TPCinformation for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
InformationAddList-RL-ReconfPrepTDD
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.
    { ID id-RL-ID                                           CRITICALITY ignore  EXTENSION RL-ID               PRESENCE optional }|
-- This is the RL ID for the first RL repetition
    { ID id-multipleRL-ul-DPCH-InformationList               CRITICALITY reject  EXTENSION MultipleRL-UL-DPCH-InformationAddList-RL-
ReconfPrepTDD   PRESENCE optional }|
-- This Information is the for the 2nd and beyond RL repetition,
    { ID id-UL-DPCH-768-InformationAddItemIE-RL-ReconfPrepTDD   CRITICALITY reject  EXTENSION UL-DPCH-768-InformationAddList-RL-ReconfPrepTDD
    PRESENCE optional },    -- Applicable to 7.68Mcps TDD only, first radio link
    ...
}

UL-DPCH-InformationAddList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ UL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD }}

UL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD   CRITICALITY reject      TYPE UL-DPCH-InformationAddItem-RL-ReconfPrepTDD    PRESENCE
mandatory }
}

UL-DPCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-Timeslot-Information                 UL-Timeslot-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }     OPTIONAL,
    ...
}

UL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
```

```
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-Timeslot-InformationLCR              UL-TimeslotLCR-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-LCR-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
}

UL-DPCH-LCR-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MultipleRL-UL-DPCH-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF MultipleRL-UL-DPCH-InformationAddListIE-RL-
ReconfPrepTDD
--Includes the 2nd through the max number of radio link repetitions.

MultipleRL-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD ::= SEQUENCE {
    ul-DPCH-InformationList                     UL-DPCH-InformationAddList-RL-ReconfPrepTDD     OPTIONAL,
    ul-DPCH-InformationListLCR                  UL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD OPTIONAL,
    ul-sir-target                               UL-SIR                                          OPTIONAL,
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.
    tDD-TPC-UplinkStepSize-LCR                  TDD-TPC-UplinkStepSize-LCR                      OPTIONAL,
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.
    rL-ID                                       RL-ID                                           OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { MultipleRL-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD-ExtIEs} }
        OPTIONAL,
    ...
}

MultipleRL-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-768-InformationAddListIE-RL-ReconfPrepTDD   CRITICALITY reject  EXTENSION   UL-DPCH-768-InformationAddList-RL-ReconfPrepTDD
    PRESENCE optional },
    ...
}

UL-DPCH-768-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-Timeslot-Information768              UL-Timeslot768-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-768-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
}

UL-DPCH-768-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD

UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                               CCTrCH-ID,
    tFCS                                    TFCS                                                    OPTIONAL,
    tFCI-Coding                             TFCI-Coding                                             OPTIONAL,
    punctureLimit                           PunctureLimit                                           OPTIONAL,
    ul-DPCH-InformationAddList              UL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD      OPTIONAL,
```

```
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
    ul-DPCH-InformationModifyList               UL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD              OPTIONAL,
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
    ul-DPCH-InformationDeleteList               UL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD              OPTIONAL,
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
    iE-Extensions                               ProtocolExtensionContainer { { UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-LCR-InformationModify-AddList    CRITICALITY reject     EXTENSION    UL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD
    PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
    { ID id-UL-SIRTarget        CRITICALITY reject      EXTENSION       UL-SIR      PRESENCE optional              }|
    -- Applicable to 1.28Mcps TDD only.
-- This Information is the for the first RL repetition, SIR Target information for RL repetitions 2 and on, should be defined in MultipleRL-UL-
DPCH-InformationModifyList-RL-ReconfPrepTDD
    { ID id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD           CRITICALITY reject    EXTENSION   TDD-TPC-UplinkStepSize-LCR
    PRESENCE optional   }|
    -- Applicable to 1.28Mcps TDD only
-- This Information is the for the first RL repetition, Step Size information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
    { ID id-RL-ID                                   CRITICALITY ignore      EXTENSION       RL-ID                  PRESENCE optional }|
-- This is the RL ID for the first RL repetition
    { ID id-multipleRL-ul-DPCH-InformationModifyList    CRITICALITY reject      EXTENSION       MultipleRL-UL-DPCH-InformationModifyList-RL-
ReconfPrepTDD   PRESENCE optional   }|
-- This DPCH Information is the for the 2nd and beyond RL repetition,
    { ID id-UL-DPCH-768-InformationModify-AddItem    CRITICALITY reject     EXTENSION    UL-DPCH-768-InformationModify-AddList-RL-ReconfPrepTDD
    PRESENCE optional },    -- Applicable to 7.68Mcps TDD only
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
    ...
}

UL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ UL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD }}

UL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD   CRITICALITY reject       TYPE UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD
        PRESENCE mandatory }
}

UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-Timeslot-Information                 UL-Timeslot-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
```

```
}

UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ UL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD
}}

UL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD   CRITICALITY reject        TYPE UL-DPCH-InformationModify-ModifyItem-RL-
ReconfPrepTDD       PRESENCE mandatory }
}

UL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod    OPTIONAL,
    repetitionLength                        RepetitionLength    OPTIONAL,
    tdd-DPCHOffset                          TDD-DPCHOffset      OPTIONAL,
    uL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD              UL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD
    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-TimeslotLCR-Information-RL-ReconfPrepTDD     CRITICALITY reject      EXTENSION   UL-TimeslotLCR-InformationModify-ModifyList-RL-
ReconfPrepTDD       PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
    { ID id-UL-Timeslot768-Information-RL-ReconfPrepTDD     CRITICALITY reject      EXTENSION   UL-Timeslot768-InformationModify-ModifyList-RL-
ReconfPrepTDD       PRESENCE optional },    -- Applicable to 7.68Mcps TDD only
    ...
}

UL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationModify-ModifyItem-RL-
ReconfPrepTDD   -- Applicable to 3.84Mcps TDD only

UL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType       OPTIONAL,
    tFCI-Presence                           TFCI-Presence                   OPTIONAL,
    uL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD               UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD     OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-Code-InformationModify-ModifyItem-RL-
ReconfPrepTDD

UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
```

```
    dPCH-ID                                 DPCH-ID,
    tdd-ChannelisationCode                  TDD-ChannelisationCode      OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-TimeslotLCR-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfULTSLCRs)) OF UL-Timeslot-LCR-InformationModify-
ModifyItem-RL-ReconfPrepTDD -- Applicable to 1.28Mcps TDD only

UL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    timeSlotLCR                             TimeSlotLCR,
    midambleShiftLCR                        MidambleShiftLCR    OPTIONAL,
    tFCI-Presence                           TFCI-Presence       OPTIONAL,
    uL-Code-InformationModify-ModifyList-RL-ReconfPrepTDDLCR                UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDDLCR    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
        OPTIONAL,
    ...
}

UL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-PLCCH-Information-RL-ReconfPrepTDDLCR   CRITICALITY reject      EXTENSION PLCCHinformation              PRESENCE optional },
    ...
}

UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDDLCR ::= SEQUENCE (SIZE (1..maxNrOfDPCHLCRs)) OF UL-Code-InformationModify-ModifyItem-RL-
ReconfPrepTDDLCR

UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDDLCR ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    tdd-ChannelisationCodeLCR               TDD-ChannelisationCodeLCR       OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDDLCR-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDDLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD  CRITICALITY reject   EXTENSION TDD-UL-DPCH-TimeSlotFormat-LCR   PRESENCE
optional},

    ...
}

UL-Timeslot768-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-768-InformationModify-ModifyItem-
RL-ReconfPrepTDD    -- Applicable to 7.68Mcps TDD only

UL-Timeslot-768-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType768            MidambleShiftAndBurstType768    OPTIONAL,
    tFCI-Presence                           TFCI-Presence                   OPTIONAL,
```

```
    uL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD768              UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD768    OPTIONAL,
    iE-Extensions                         ProtocolExtensionContainer { { UL-Timeslot-768-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
        OPTIONAL,
    ...
}

UL-Timeslot-768-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD768 ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-Code-InformationModify-ModifyItem-RL-
ReconfPrepTDD768

UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD768 ::= SEQUENCE {
    dPCH-ID                               DPCH-ID,
    tdd-ChannelisationCode768             TDD-ChannelisationCode768       OPTIONAL,
    iE-Extensions                         ProtocolExtensionContainer { { UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD768-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD768-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ UL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD
}}

UL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD   CRITICALITY reject        TYPE UL-DPCH-InformationModify-DeleteListIE-RL-
ReconfPrepTDD       PRESENCE mandatory }
}

UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-DPCH-InformationModify-DeleteItem-RL-
ReconfPrepTDD

UL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dPCH-ID                             DPCH-ID,
    iE-Extensions                       ProtocolExtensionContainer { { UL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                    RepetitionPeriod,
    repetitionLength                    RepetitionLength,
    tdd-DPCHOffset                      TDD-DPCHOffset,
    uL-Timeslot-InformationLCR          UL-TimeslotLCR-Information,
    iE-Extensions                       ProtocolExtensionContainer { { UL-DPCH-LCR-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
```

```
    ...
}

UL-DPCH-LCR-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MultipleRL-UL-DPCH-InformationModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF MultipleRL-UL-DPCH-InformationModifyListIE-RL-
ReconfPrepTDD
--Includes the 2nd through the max number of radio link information repetitions.

MultipleRL-UL-DPCH-InformationModifyListIE-RL-ReconfPrepTDD ::= SEQUENCE {
    ul-DPCH-InformationAddList                  UL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD                OPTIONAL,
    ul-DPCH-InformationModifyList               UL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD             OPTIONAL,
    ul-DPCH-InformationDeleteList               UL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD             OPTIONAL,
    ul-DPCH-InformationAddListLCR               UL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD            OPTIONAL,
    ul-sir-target                               UL-SIR                                                            OPTIONAL,
    tDD-TPC-UplinkStepSize-LCR                  TDD-TPC-UplinkStepSize-LCR                                        OPTIONAL,
    rL-ID                                       RL-ID                                                             OPTIONAL,
    -- This DPCH Information is the for the 2nd and beyond RL repetitions,
    iE-Extensions                               ProtocolExtensionContainer { { MultipleRL-UL-DPCH-InformationModifyListIE-RL-ReconfPrepTDD-ExtIEs}
}       OPTIONAL,
...
}

MultipleRL-UL-DPCH-InformationModifyListIE-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-768-InformationModify-AddList    CRITICALITY reject     EXTENSION UL-DPCH-768-InformationModify-AddList-RL-ReconfPrepTDD
    PRESENCE optional },    -- Applicable to 7.68Mcps TDD only
    ...
}

UL-DPCH-768-InformationModify-AddList-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-Timeslot-Information768              UL-Timeslot768-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-768-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-DPCH-768-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD

UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                               CCTrCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}
```

```
UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD

DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                                   CCTrCH-ID,
    tFCS                                        TFCS,
    tFCI-Coding                                 TFCI-Coding,
    punctureLimit                               PunctureLimit,
    cCTrCH-TPCList                              CCTrCH-TPCAddList-RL-ReconfPrepTDD                          OPTIONAL,
    dl-DPCH-InformationList                     DL-DPCH-InformationAddList-RL-ReconfPrepTDD                 OPTIONAL,
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-DL-DPCH-
InformationAddList-RL-ReconfPrepTDD
    iE-Extensions                               ProtocolExtensionContainer { { DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD             CRITICALITY reject  EXTENSION DL-DPCH-LCR-InformationAddList-RL-
ReconfPrepTDD       PRESENCE optional }|     -- Applicable to 1.28Mcps TDD only
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-DL-DPCH-
InformationAddList-RL-ReconfPrepTDD
    { ID id-CCTrCH-Initial-DL-Power-RL-ReconfPrepTDD                    CRITICALITY ignore  EXTENSION DL-Power      PRESENCE optional }|
-- This DL Power information is the for the first RL repetition, DL power information for RL repetitions 2 and on, should be defined in MultipleRL-
DL-DPCH-InformationAddList-RL-ReconfPrepTDD
    { ID id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD    CRITICALITY reject  EXTENSION  TDD-TPC-DownlinkStepSize PRESENCE optional}|
-- This DL step size is the for the first RL repetition, DL step size information for RL repetitions 2 and on, should be defined in MultipleRL-DL-
DPCH-InformationAddList-RL-ReconfPrepTDD
    { ID id-CCTrCH-Maximum-DL-Power-InformationAdd-RL-ReconfPrepTDD     CRITICALITY ignore  EXTENSION DL-Power      PRESENCE optional }|
-- This DL Power information is the for the first RL repetition, DL power information for RL repetitions 2 and on, should be defined in MultipleRL-
DL-DPCH-InformationAddList-RL-ReconfPrepTDD
    { ID id-CCTrCH-Minimum-DL-Power-InformationAdd-RL-ReconfPrepTDD     CRITICALITY ignore  EXTENSION DL-Power      PRESENCE optional }|
-- This DL Power information is the for the first RL repetition, DL power information for RL repetitions 2 and on, should be defined in MultipleRL-
DL-DPCH-InformationAddList-RL-ReconfPrepTDD
    { ID id-RL-ID                                                       CRITICALITY ignore  EXTENSION RL-ID         PRESENCE optional }|
-- This is the RL ID for the first RL repetition
    { ID id-multipleRL-dl-DPCH-InformationList                          CRITICALITY reject  EXTENSION MultipleRL-DL-DPCH-InformationAddList-RL-
ReconfPrepTDD   PRESENCE optional   }|
-- This DPCH Information is the for the 2nd and beyond RL repetition,
    { ID id-DL-DPCH-768-InformationAddItem-RL-ReconfPrepTDD             CRITICALITY reject  EXTENSION DL-DPCH-768-InformationAddList-RL-
ReconfPrepTDD       PRESENCE optional },     -- Applicable to 7.68Mcps TDD only
    ...
}

CCTrCH-TPCAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCAddItem-RL-ReconfPrepTDD      -- Applicable to 3.84Mcps TDD
and 7.68Mcps TDD only

CCTrCH-TPCAddItem-RL-ReconfPrepTDD   ::= SEQUENCE {
    cCTrCH-ID                           CCTrCH-ID,
    iE-Extensions                       ProtocolExtensionContainer { { CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs} }     OPTIONAL,
    ...
```

```
}

CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationAddList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD }}

DL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD   CRITICALITY reject      TYPE DL-DPCH-InformationAddItem-RL-ReconfPrepTDD    PRESENCE
mandatory }
}

DL-DPCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    dL-Timeslot-Information                 DL-Timeslot-Information,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }     OPTIONAL,
    ...
}

DL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    dL-Timeslot-InformationLCR              DL-TimeslotLCR-Information,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-LCR-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
}

DL-DPCH-LCR-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MultipleRL-DL-DPCH-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF MultipleRL-DL-DPCH-InformationAddListIE-RL-
ReconfPrepTDD
    --Includes the 2nd through the max number of radio link information repetitions.

MultipleRL-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD ::= SEQUENCE {
    dl-DPCH-InformationList                                 DL-DPCH-InformationAddList-RL-ReconfPrepTDD        OPTIONAL,
    dl-DPCH-InformationListLCR                              DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD    OPTIONAL,
    cCTrCH-Initial-DL-Power                                 DL-Power                                           OPTIONAL,
    tDD-TPC-DownlinkStepSize                                TDD-TPC-DownlinkStepSize                           OPTIONAL,
    cCTrCH-Maximum-DL-Power-InformationAdd-RL-ReconfPrepTDD  DL-Power                                          OPTIONAL,
    cCTrCH-Minimum-DL-Power-InformationAdd-RL-ReconfPrepTDD  DL-Power                                          OPTIONAL,
    rL-ID                                                   RL-ID                                              OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { { MultipleRL-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD-ExtIEs} }   OPTIONAL,
    ...
}
```

```
MultipleRL-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-768-InformationAddList-RL-ReconfPrepTDD     CRITICALITY reject  EXTENSION DL-DPCH-768-InformationAddList-RL-ReconfPrepTDD
    PRESENCE optional },    -- Applicable to 7.68Mcps TDD only
    ...
}

DL-DPCH-768-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    dL-Timeslot-Information768              DL-Timeslot768-Information,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-768-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
}

DL-DPCH-768-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD

DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                                   CCTrCH-ID,
    tFCS                                        TFCS                                                    OPTIONAL,
    tFCI-Coding                                 TFCI-Coding                                             OPTIONAL,
    punctureLimit                               PunctureLimit                                           OPTIONAL,
    cCTrCH-TPCList                              CCTrCH-TPCModifyList-RL-ReconfPrepTDD                   OPTIONAL,
    dl-DPCH-InformationAddList                  DL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD       OPTIONAL,
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-DL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
    dl-DPCH-InformationModifyList               DL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD    OPTIONAL,
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-DL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
    dl-DPCH-InformationDeleteList               DL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD    OPTIONAL,
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-DL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
    iE-Extensions                               ProtocolExtensionContainer { { DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD CRITICALITY reject       EXTENSION              DL-DPCH-LCR-InformationModify-
AddList-RL-ReconfPrepTDD        PRESENCE optional }|  -- Applicable to 1.28Mcps TDD only
-- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-DL-DPCH-
InformationModifyList-RL-ReconfPrepTDD
    { ID id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD CRITICALITY reject  EXTENSION TDD-TPC-DownlinkStepSize  PRESENCE optional}|
-- This Step Size Information is the for the first RL repetition, step size information for RL repetitions 2 and on, should be defined in
MultipleRL-DL-DPCH-InformationModifyList-RL-ReconfPrepTDD
    { ID id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfPrepTDD      CRITICALITY ignore  EXTENSION DL-Power    PRESENCE optional }|
-- This power Information is the for the first RL repetition, power information for RL repetitions 2 and on, should be defined in MultipleRL-DL-
DPCH-InformationModifyList-RL-ReconfPrepTDD
    { ID id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfPrepTDD      CRITICALITY ignore  EXTENSION DL-Power    PRESENCE optional }|
```

```
-- This power Information is the for the first RL repetition, power information for RL repetitions 2 and on, should be defined in MultipleRL-DL-
DPCH-InformationModifyList-RL-ReconfPrepTDD
    { ID id-RL-ID       CRITICALITY ignore      EXTENSION       RL-ID       PRESENCE optional   }|
-- This is the RL ID for the first RL repetition
    { ID id-multipleRL-dl-DPCH-InformationModifyList    CRITICALITY reject      EXTENSION       MultipleRL-DL-DPCH-InformationModifyList-RL-
ReconfPrepTDD   PRESENCE optional   }|
-- This DPCH Information is the for the 2nd and beyond RL repetitions,
    { ID id-DL-DPCH-768-InformationModify-AddItem-RL-ReconfPrepTDD CRITICALITY reject       EXTENSION              DL-DPCH-768-InformationModify-
AddList-RL-ReconfPrepTDD        PRESENCE optional },  -- Applicable to 7.68Mcps TDD only first radio link
    ...
}

CCTrCH-TPCModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCModifyItem-RL-ReconfPrepTDD

CCTrCH-TPCModifyItem-RL-ReconfPrepTDD    ::= SEQUENCE {
    cCTrCH-ID                           CCTrCH-ID,
    iE-Extensions                       ProtocolExtensionContainer { { CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs} }     OPTIONAL,
    ...
}

CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD }}
-- Applicable to 3.84Mcps TDD only

DL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD   CRITICALITY reject       TYPE DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD
        PRESENCE mandatory }
}

DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                    RepetitionPeriod,
    repetitionLength                    RepetitionLength,
    tdd-DPCHOffset                      TDD-DPCHOffset,
    dL-Timeslot-Information             DL-Timeslot-Information,
    iE-Extensions                       ProtocolExtensionContainer { { DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD
}}

DL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD   CRITICALITY reject        TYPE DL-DPCH-InformationModify-ModifyItem-RL-
ReconfPrepTDD       PRESENCE mandatory }
}
```

```
DL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod            OPTIONAL,
    repetitionLength                        RepetitionLength            OPTIONAL,
    tdd-DPCHOffset                          TDD-DPCHOffset              OPTIONAL,
    dL-Timeslot-InformationAddModify-ModifyList-RL-ReconfPrepTDD       DL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD       OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD   CRITICALITY reject                          EXTENSION       DL-Timeslot-
LCR-InformationModify-ModifyList-RL-ReconfPrepTDD       PRESENCE optional }|
    { ID id-DL-Timeslot-768-InformationModify-ModifyList-RL-ReconfPrepTDD   CRITICALITY reject                          EXTENSION       DL-Timeslot-
768-InformationModify-ModifyList-RL-ReconfPrepTDD       PRESENCE optional },
    ...
}

DL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTSs)) OF DL-Timeslot-InformationModify-ModifyItem-RL-
ReconfPrepTDD

DL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD    ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType           OPTIONAL,
    tFCI-Presence                           TFCI-Presence                       OPTIONAL,
    dL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD               DL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD       OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs)) OF DL-Code-InformationModify-ModifyItem-RL-
ReconfPrepTDD

DL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD    ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    tdd-ChannelisationCode                  TDD-ChannelisationCode      OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTSLCRs)) OF DL-Timeslot-LCR-InformationModify-
ModifyItem-RL-ReconfPrepTDD

DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD    ::= SEQUENCE {
```

```
    timeSlotLCR                             TimeSlotLCR,
    midambleShiftLCR                        MidambleShiftLCR        OPTIONAL,
    tFCI-Presence                           TFCI-Presence           OPTIONAL,
    dL-Code-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD              DL-Code-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD
    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
        OPTIONAL,
    ...
}

DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Maximum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD  CRITICALITY ignore  EXTENSION DL-Power    PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-Minimum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD  CRITICALITY ignore  EXTENSION DL-Power    PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

DL-Code-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHLCRs)) OF DL-Code-LCR-InformationModify-ModifyItem-RL-
ReconfPrepTDD

DL-Code-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD    ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    tdd-ChannelisationCodeLCR               TDD-ChannelisationCodeLCR       OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Code-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Code-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD   CRITICALITY    reject   EXTENSION TDD-DL-DPCH-TimeSlotFormat-LCR   PRESENCE
optional},
    ...
}

DL-Timeslot-768-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTSs)) OF DL-Timeslot-768-InformationModify-
ModifyItem-RL-ReconfPrepTDD

DL-Timeslot-768-InformationModify-ModifyItem-RL-ReconfPrepTDD    ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType           OPTIONAL,
    tFCI-Presence                           TFCI-Presence                       OPTIONAL,
    dL-Code-768-InformationModify-ModifyList-RL-ReconfPrepTDD              DL-Code-768-InformationModify-ModifyList-RL-ReconfPrepTDD
    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Timeslot-768-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
        OPTIONAL,
    ...
}

DL-Timeslot-768-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
DL-Code-768-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs768)) OF DL-Code-768-InformationModify-ModifyItem-RL-
ReconfPrepTDD

DL-Code-768-InformationModify-ModifyItem-RL-ReconfPrepTDD    ::= SEQUENCE {
    dPCH-ID768                          DPCH-ID768,
    tdd-ChannelisationCode768           TDD-ChannelisationCode768       OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { DL-Code-768-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Code-768-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD
}}

DL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD   CRITICALITY reject        TYPE DL-DPCH-InformationModify-DeleteListIE-RL-
ReconfPrepTDD       PRESENCE mandatory }
}

DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF DL-DPCH-InformationModify-DeleteItem-RL-
ReconfPrepTDD

DL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                    RepetitionPeriod,
    repetitionLength                    RepetitionLength,
    tdd-DPCHOffset                      TDD-DPCHOffset,
    dL-Timeslot-InformationLCR          DL-TimeslotLCR-Information,
    iE-Extensions                       ProtocolExtensionContainer { { DL-DPCH-LCR-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-DPCH-LCR-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MultipleRL-DL-DPCH-InformationModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF MultipleRL-DL-DPCH-InformationModifyListIE-RL-
ReconfPrepTDD
    --Includes the 2nd through the max number of radio link information repetitions.
```

```
MultipleRL-DL-DPCH-InformationModifyListIE-RL-ReconfPrepTDD ::= SEQUENCE {
    dl-DPCH-InformationAddList                                  DL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD      OPTIONAL,
    dl-DPCH-InformationModifyList                               DL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD   OPTIONAL,
    dl-DPCH-InformationDeleteList                               DL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD   OPTIONAL,
    dl-DPCH-InformationAddListLCR                               DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD  OPTIONAL,
    tDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD TDD-TPC-DownlinkStepSize                                OPTIONAL,
    cCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfPrepTDD  DL-Power                                                OPTIONAL,
    cCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfPrepTDD  DL-Power                                                OPTIONAL,
    rL-ID                                                       RL-ID                                                   OPTIONAL,
    iE-Extensions                                               ProtocolExtensionContainer { { MultipleRL-DL-DPCH-InformationModifyListIE-RL-
ReconfPrepTDD-ExtIEs} }     OPTIONAL,
    ...
}

MultipleRL-DL-DPCH-InformationModifyListIE-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-768-InformationModify-AddList-RL-ReconfPrepTDD CRITICALITY reject       EXTENSION              DL-DPCH-768-InformationModify-
AddList-RL-ReconfPrepTDD        PRESENCE optional },  -- Applicable to 7.68Mcps TDD only
    ...
}

DL-DPCH-768-InformationModify-AddList-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    dL-Timeslot-Information768              DL-Timeslot768-Information,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-768-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-DPCH-768-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD

DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                                   CCTrCH-ID,
    iE-Extensions                               ProtocolExtensionContainer { { DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepTDD

DCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dCH-ID                                  DCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
```

```
}

DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-Information-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-Information-ModifyItem-RL-ReconfPrepTDD

DSCH-Information-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dSCH-ID                                 DSCH-ID,
    cCTrCH-ID                               CCTrCH-ID                   OPTIONAL,
    -- DL CCTrCH in which the DSCH is mapped
    transportFormatSet                      TransportFormatSet          OPTIONAL,
    allocationRetentionPriority             AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority                   FrameHandlingPriority       OPTIONAL,
    toAWS                                   ToAWS                       OPTIONAL,
    toAWE                                   ToAWE                       OPTIONAL,
    transportBearerRequestIndicator         TransportBearerRequestIndicator,
    iE-Extensions                           ProtocolExtensionContainer { { DSCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }   OPTIONAL,
    ...
 }

DSCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-bindingID                   CRITICALITY ignore  EXTENSION BindingID                 PRESENCE optional   }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-transportlayeraddress       CRITICALITY ignore  EXTENSION TransportLayerAddress     PRESENCE optional   }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TnlQos                      CRITICALITY ignore  EXTENSION TnlQos                    PRESENCE optional   },
    ...
}

DSCH-Information-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-Information-DeleteItem-RL-ReconfPrepTDD

DSCH-Information-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dSCH-ID                                 DSCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { DSCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs} }   OPTIONAL,
    ...
}

DSCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-Information-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-Information-ModifyItem-RL-ReconfPrepTDD

USCH-Information-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    uSCH-ID                                 USCH-ID,
    transportFormatSet                      TransportFormatSet          OPTIONAL,
    allocationRetentionPriority             AllocationRetentionPriority OPTIONAL,
    cCTrCH-ID                               CCTrCH-ID                   OPTIONAL,   -- UL CCTrCH in which the USCH is mapped
    transportBearerRequestIndicator         TransportBearerRequestIndicator,
    iE-Extensions                           ProtocolExtensionContainer { { USCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }   OPTIONAL,
    ...
}
```

```
USCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-bindingID                       CRITICALITY ignore      EXTENSION BindingID                             PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-transportlayeraddress           CRITICALITY ignore      EXTENSION TransportLayerAddress                 PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TnlQos                          CRITICALITY ignore      EXTENSION TnlQos                                PRESENCE optional },
    ...
}

USCH-Information-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-Information-DeleteItem-RL-ReconfPrepTDD

USCH-Information-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    uSCH-ID                                 USCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { USCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs} }   OPTIONAL,
    ...

}

USCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MultipleRL-Information-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF RL-Information-RL-ReconfPrepTDD
--Includes the 2nd through the max number of radio link information repetitions.

RL-Information-RL-ReconfPrepTDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    maxDL-Power                             DL-Power            OPTIONAL,
    minDL-Power                             DL-Power            OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RL-Information-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
}

RL-Information-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-InitDL-Power                            CRITICALITY ignore  EXTENSION DL-Power                          PRESENCE optional }|
    { ID id-RL-Specific-DCH-Info                    CRITICALITY ignore  EXTENSION RL-Specific-DCH-Info              PRESENCE optional }|
    { ID id-UL-Synchronisation-Parameters-LCR        CRITICALITY ignore  EXTENSION UL-Synchronisation-Parameters-LCR  PRESENCE optional }|
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-TimeslotISCP-LCR-InfoList-RL-ReconfPrepTDD  CRITICALITY ignore  EXTENSION DL-TimeslotISCPInfoLCR          PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-UARFCNforNt                             CRITICALITY reject  EXTENSION UARFCN                            PRESENCE optional },
      -- Applicable to 1.28Mcps TDD when using multiple frequencies
    ...
}


-- **************************************************************
--
-- RADIO LINK RECONFIGURATION READY
--
-- **************************************************************

RadioLinkReconfigurationReady ::= SEQUENCE {
```

```
    protocolIEs             ProtocolIE-Container        {{RadioLinkReconfigurationReady-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationReady-Extensions}}                 OPTIONAL,
    ...
}

RadioLinkReconfigurationReady-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID                 CRITICALITY ignore  TYPE CRNC-CommunicationContextID                PRESENCE mandatory }|
    { ID id-RL-InformationResponseList-RL-ReconfReady   CRITICALITY ignore  TYPE RL-InformationResponseList-RL-ReconfReady  PRESENCE optional }|
    { ID id-CriticalityDiagnostics                      CRITICALITY ignore  TYPE CriticalityDiagnostics                     PRESENCE optional },
    ...
}

RadioLinkReconfigurationReady-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TargetCommunicationControlPortID    CRITICALITY ignore      EXTENSION CommunicationControlPortID          PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information-Response     CRITICALITY ignore      EXTENSION HSDSCH-FDD-Information-Response     PRESENCE optional }|
    -- FDD only
    { ID id-HSDSCH-TDD-Information-Response     CRITICALITY ignore      EXTENSION HSDSCH-TDD-Information-Response     PRESENCE optional }|
    -- TDD only
    { ID id-E-DCH-Information-Response          CRITICALITY ignore      EXTENSION E-DCH-Information-Response          PRESENCE optional }|
    { ID id-MAChs-ResetIndicator                CRITICALITY ignore      EXTENSION MAChs-ResetIndicator                PRESENCE optional }|
    { ID id-Fast-Reconfiguration-Permission     CRITICALITY ignore      EXTENSION Fast-Reconfiguration-Permission     PRESENCE optional }|
    { ID id-ContinuousPacketConnectivityHS-SCCH-less-Information-Response       CRITICALITY ignore                  EXTENSION
    ContinuousPacketConnectivityHS-SCCH-less-Information-Response           PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-ReconfReady    ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationResponseItemIE-RL-
ReconfReady}}

RL-InformationResponseItemIE-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-ReconfReady   CRITICALITY ignore  TYPE RL-InformationResponseItem-RL-ReconfReady  PRESENCE mandatory }
}

RL-InformationResponseItem-RL-ReconfReady ::= SEQUENCE {
    rL-ID                                       RL-ID,
    dCH-InformationResponseList-RL-ReconfReady      DCH-InformationResponseList-RL-ReconfReady  OPTIONAL,
    dSCH-InformationResponseList-RL-ReconfReady     DSCH-InformationResponseList-RL-ReconfReady OPTIONAL, -- TDD only
    uSCH-InformationResponseList-RL-ReconfReady     USCH-InformationResponseList-RL-ReconfReady OPTIONAL, -- TDD only
    not-Used-tFCI2-BearerInformationResponse        NULL                                        OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { RL-InformationResponseItem-RL-ReconfReady-ExtIEs} }
    OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-ReconfReady-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-UpdatedIndicator          CRITICALITY ignore  EXTENSION DL-PowerBalancing-UpdatedIndicator          PRESENCE optional
}|
    { ID id-E-DCH-RL-Set-ID                             CRITICALITY ignore  EXTENSION RL-Set-ID                                  PRESENCE optional
}|
    { ID id-E-DCH-FDD-DL-Control-Channel-Information    CRITICALITY ignore  EXTENSION E-DCH-FDD-DL-Control-Channel-Information    PRESENCE optional
}|
    { ID id-E-DCH-FDD-Information-Response              CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response              PRESENCE optional
},
    ...
```

```
}

DCH-InformationResponseList-RL-ReconfReady ::= ProtocolIE-Single-Container {{ DCH-InformationResponseListIEs-RL-ReconfReady }}

DCH-InformationResponseListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse   CRITICALITY ignore    TYPE DCH-InformationResponse    PRESENCE mandatory }
}

DSCH-InformationResponseList-RL-ReconfReady ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseListIEs-RL-ReconfReady }}

DSCH-InformationResponseListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationResponse   CRITICALITY ignore   TYPE DSCH-InformationResponse   PRESENCE mandatory }
}

USCH-InformationResponseList-RL-ReconfReady ::= ProtocolIE-Single-Container {{ USCH-InformationResponseListIEs-RL-ReconfReady }}

USCH-InformationResponseListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationResponse   CRITICALITY ignore   TYPE USCH-InformationResponse   PRESENCE mandatory }
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION FAILURE
--
-- **************************************************************

RadioLinkReconfigurationFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkReconfigurationFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationFailure-Extensions}}              OPTIONAL,
    ...
}

RadioLinkReconfigurationFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID         CRITICALITY ignore  TYPE CRNC-CommunicationContextID                PRESENCE mandatory } |
    { ID id-CauseLevel-RL-ReconfFailure         CRITICALITY ignore  TYPE CauseLevel-RL-ReconfFailure                PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics              CRITICALITY ignore  TYPE CriticalityDiagnostics                     PRESENCE optional },
    ...
}

RadioLinkReconfigurationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CauseLevel-RL-ReconfFailure ::= CHOICE {
    generalCause        GeneralCauseList-RL-ReconfFailure,
    rLSpecificCause     RLSpecificCauseList-RL-ReconfFailure,
    ...
}

GeneralCauseList-RL-ReconfFailure ::= SEQUENCE {
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { GeneralCauseItem-RL-ReconfFailure-ExtIEs} }        OPTIONAL,
    ...
}
```

```
GeneralCauseItem-RL-ReconfFailure-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-ReconfFailure ::= SEQUENCE {
    rL-ReconfigurationFailureList-RL-ReconfFailure      RL-ReconfigurationFailureList-RL-ReconfFailure                OPTIONAL,
    iE-Extensions                                       ProtocolExtensionContainer { { RLSpecificCauseItem-RL-ReconfFailure-ExtIEs} }
    OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-ReconfFailure-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-ReconfigurationFailureList-RL-ReconfFailure ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-
ReconfigurationFailureItemIE-RL-ReconfFailure}}

RL-ReconfigurationFailureItemIE-RL-ReconfFailure NBAP-PROTOCOL-IES ::= {
    { ID id-RL-ReconfigurationFailureItem-RL-ReconfFailure  CRITICALITY ignore  TYPE RL-ReconfigurationFailureItem-RL-ReconfFailure  PRESENCE
mandatory}
}

RL-ReconfigurationFailureItem-RL-ReconfFailure ::= SEQUENCE {
    rL-ID                                       RL-ID,
    cause                                       Cause,
    iE-Extensions                               ProtocolExtensionContainer { { RL-ReconfigurationFailureItem-RL-ReconfFailure-ExtIEs} }
    OPTIONAL,
    ...
}

RL-ReconfigurationFailureItem-RL-ReconfFailure-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION COMMIT
--
-- **************************************************************

RadioLinkReconfigurationCommit ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkReconfigurationCommit-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationCommit-Extensions}}                OPTIONAL,
    ...
}

RadioLinkReconfigurationCommit-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-NodeB-CommunicationContextID         CRITICALITY ignore  TYPE NodeB-CommunicationContextID          PRESENCE mandatory } |
    { ID    id-CFN                                  CRITICALITY ignore  TYPE CFN                                  PRESENCE mandatory }|
    { ID    id-Active-Pattern-Sequence-Information  CRITICALITY ignore  TYPE Active-Pattern-Sequence-Information   PRESENCE optional },
    -- FDD only
    ...
```

```
}

RadioLinkReconfigurationCommit-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Fast-Reconfiguration-Mode   CRITICALITY reject  EXTENSION Fast-Reconfiguration-Mode   PRESENCE optional },--FDD only
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION CANCEL
--
-- **************************************************************

RadioLinkReconfigurationCancel ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkReconfigurationCancel-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationCancel-Extensions}}                OPTIONAL,
    ...
}

RadioLinkReconfigurationCancel-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID            CRITICALITY ignore      TYPE NodeB-CommunicationContextID            PRESENCE mandatory   },
    ...
}

RadioLinkReconfigurationCancel-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION REQUEST FDD
--
-- **************************************************************

RadioLinkReconfigurationRequestFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkReconfigurationRequestFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationRequestFDD-Extensions}}            OPTIONAL,
    ...
}

RadioLinkReconfigurationRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID                    CRITICALITY reject  TYPE NodeB-CommunicationContextID              PRESENCE mandatory
}|
    { ID id-UL-DPCH-Information-RL-ReconfRqstFDD            CRITICALITY reject  TYPE UL-DPCH-Information-RL-ReconfRqstFDD      PRESENCE optional }|
    { ID id-DL-DPCH-Information-RL-ReconfRqstFDD            CRITICALITY reject  TYPE DL-DPCH-Information-RL-ReconfRqstFDD      PRESENCE optional }|
    { ID id-FDD-DCHs-to-Modify                              CRITICALITY reject  TYPE FDD-DCHs-to-Modify                        PRESENCE optional }|
    { ID id-DCHs-to-Add-FDD                                 CRITICALITY reject  TYPE DCH-FDD-Information                       PRESENCE optional }|
    { ID id-DCH-DeleteList-RL-ReconfRqstFDD                 CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfRqstFDD           PRESENCE optional }|
    { ID id-RL-InformationList-RL-ReconfRqstFDD             CRITICALITY reject  TYPE RL-InformationList-RL-ReconfRqstFDD       PRESENCE optional }|
    { ID id-Transmission-Gap-Pattern-Sequence-Information   CRITICALITY reject  TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE
optional },
    ...
}
```

```
RadioLinkReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-SignallingBearerRequestIndicator           CRITICALITY reject  EXTENSION SignallingBearerRequestIndicator      PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information                     CRITICALITY reject  EXTENSION HSDSCH-FDD-Information                PRESENCE optional }|
    { ID id-HSDSCH-Information-to-Modify-Unsynchronised CRITICALITY reject  EXTENSION HSDSCH-Information-to-Modify-Unsynchronised    PRESENCE
optional }|
    { ID id-HSDSCH-MACdFlows-to-Add                    CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-Information          PRESENCE optional }|
    { ID id-HSDSCH-MACdFlows-to-Delete                 CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-to-Delete            PRESENCE optional }|
    { ID id-HSDSCH-RNTI                                CRITICALITY reject  EXTENSION HSDSCH-RNTI                           PRESENCE conditional }|
    -- The IE shall be present if HS-PDSCH RL ID IE is present.
    { ID id-HSPDSCH-RL-ID                              CRITICALITY reject  EXTENSION RL-ID                                PRESENCE optional }|
    { ID id-E-DPCH-Information-RL-ReconfRqstFDD        CRITICALITY reject  EXTENSION E-DPCH-Information-RL-ReconfRqstFDD   PRESENCE optional }|
    { ID id-E-DCH-FDD-Information                      CRITICALITY reject  EXTENSION E-DCH-FDD-Information                 PRESENCE optional }|
    { ID id-E-DCH-FDD-Information-to-Modify            CRITICALITY reject  EXTENSION E-DCH-FDD-Information-to-Modify       PRESENCE optional }|
    { ID id-E-DCH-MACdFlows-to-Add                     CRITICALITY reject  EXTENSION E-DCH-MACdFlows-Information           PRESENCE optional }|
    { ID id-E-DCH-MACdFlows-to-Delete                  CRITICALITY reject  EXTENSION E-DCH-MACdFlows-to-Delete             PRESENCE optional }|
    { ID id-Serving-E-DCH-RL-ID                        CRITICALITY reject  EXTENSION Serving-E-DCH-RL-ID                   PRESENCE optional }|
    { ID id-CPC-Information                            CRITICALITY reject  EXTENSION CPC-Information                      PRESENCE optional },
    ...
}

UL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    ul-TFCS                                     TFCS            OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPDCH-Indicator-For-E-DCH-Operation  CRITICALITY reject  EXTENSION UL-DPDCH-Indicator-For-E-DCH-Operation    PRESENCE conditional },
    -- The IE shall be present if E-DPCH Information IE is present
    ...
}

DL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    dl-TFCS                                     TFCS                                    OPTIONAL,
    tFCI-SignallingMode                         TFCI-SignallingMode                     OPTIONAL,
    limitedPowerIncrease                        LimitedPowerIncrease                    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} }    OPTIONAL,
    ...
 }

DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstFDD

DCH-DeleteItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dCH-ID                                      DCH-ID,
    iE-Extensions                               ProtocolExtensionContainer { { DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs} }      OPTIONAL,
    ...

}

DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

RL-InformationList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-RL-ReconfRqstFDD}}

RL-InformationItemIE-RL-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-ReconfRqstFDD         CRITICALITY reject      TYPE RL-InformationItem-RL-ReconfRqstFDD    PRESENCE mandatory }
}

RL-InformationItem-RL-ReconfRqstFDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    maxDL-Power                             DL-Power                    OPTIONAL,
    minDL-Power                             DL-Power                    OPTIONAL,
    dl-CodeInformation                      FDD-DL-CodeInformation      OPTIONAL,
    -- The IE shall be present if the Transmission Gap Pattern Sequence Information IE is included and the indicated Downlink Compressed Mode
method for at least one of the included Transmission Gap Pattern Sequence is set to "SF/2".
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfRqstFDD-ExtIEs} }      OPTIONAL,
    ...
}

RL-InformationItem-RL-ReconfRqstFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DLReferencePower            CRITICALITY ignore      EXTENSION DL-Power                                  PRESENCE optional }|
    { ID id-RL-Specific-DCH-Info        CRITICALITY ignore      EXTENSION RL-Specific-DCH-Info                      PRESENCE optional }|
    { ID id-E-DCH-RL-Indication         CRITICALITY reject      EXTENSION E-DCH-RL-Indication                       PRESENCE optional }|
    { ID id-RL-Specific-E-DCH-Info      CRITICALITY ignore      EXTENSION RL-Specific-E-DCH-Info                    PRESENCE optional }|
    { ID id-F-DPCH-SlotFormat           CRITICALITY reject      EXTENSION F-DPCH-SlotFormat                         PRESENCE optional },
    ...
}

E-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    maxSet-E-DPDCHs                     Max-Set-E-DPDCHs                                                        OPTIONAL,
    ul-PunctureLimit                    PunctureLimit                                                           OPTIONAL,
    e-TFCS-Information                  E-TFCS-Information                                                      OPTIONAL,
    e-TTI                               E-TTI                                                                   OPTIONAL,
    e-DPCCH-PO                          E-DPCCH-PO                                                              OPTIONAL,
    e-RGCH-2-IndexStepThreshold         E-RGCH-2-IndexStepThreshold                                             OPTIONAL,
    e-RGCH-3-IndexStepThreshold         E-RGCH-3-IndexStepThreshold                                             OPTIONAL,
    hARQ-Info-for-E-DCH                 HARQ-Info-for-E-DCH                                                     OPTIONAL,
    hSDSCH-Configured-Indicator         HSDSCH-Configured-Indicator                                             OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { E-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} }        OPTIONAL,
    ...
}

E-DPCH-Information-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION REQUEST TDD
--
-- **************************************************************

RadioLinkReconfigurationRequestTDD ::= SEQUENCE {
```

```
    protocolIEs             ProtocolIE-Container        {{RadioLinkReconfigurationRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationRequestTDD-Extensions}}            OPTIONAL,
    ...
}

RadioLinkReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID                        CRITICALITY reject  TYPE NodeB-CommunicationContextID          PRESENCE mandatory
}|
    { ID id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
    PRESENCE optional } |
    { ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
    PRESENCE optional } |
    { ID id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
    PRESENCE optional } |
    { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
    PRESENCE optional } |
    { ID id-TDD-DCHs-to-Modify                                  CRITICALITY reject  TYPE TDD-DCHs-to-Modify                  PRESENCE optional }|
    { ID    id-DCHs-to-Add-TDD                                  CRITICALITY reject  TYPE DCH-TDD-Information                 PRESENCE optional }|
    { ID id-DCH-DeleteList-RL-ReconfRqstTDD                     CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfRqstTDD     PRESENCE optional }|
    { ID id-RL-Information-RL-ReconfRqstTDD                     CRITICALITY reject  TYPE RL-Information-RL-ReconfRqstTDD     PRESENCE optional },
-- This RL-Information-RL-ReconfRqstTDD is the first RL information repetition in the RL-Information List. Repetition 2 and on, should be defined
in Multiple-RL-Information-RL-ReconfRqstTDD,
    ...
}

RadioLinkReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-SignallingBearerRequestIndicator            CRITICALITY reject  EXTENSION SignallingBearerRequestIndicator PRESENCE optional }|
    { ID id-multiple-RL-Information-RL-ReconfRqstTDD                CRITICALITY reject  EXTENSION Multiple-RL-Information-RL-ReconfRqstTDD
    PRESENCE optional }|
--Includes the 2nd through the max number of radio link information repetitions.
    { ID id-HSDSCH-TDD-Information                       CRITICALITY reject  EXTENSION HSDSCH-TDD-Information             PRESENCE optional }|
    { ID id-HSDSCH-Information-to-Modify-Unsynchronised CRITICALITY reject  EXTENSION HSDSCH-Information-to-Modify-Unsynchronised    PRESENCE
optional }|
    { ID id-HSDSCH-MACdFlows-to-Add                     CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-Information       PRESENCE optional }|
    { ID id-HSDSCH-MACdFlows-to-Delete                  CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-to-Delete         PRESENCE optional }|
    { ID id-HSDSCH-RNTI                                 CRITICALITY reject  EXTENSION HSDSCH-RNTI                        PRESENCE conditional }|
    -- The IE shall be present if HS-PDSCH RL ID IE is present.
    { ID id-HSPDSCH-RL-ID                               CRITICALITY reject  EXTENSION RL-ID                              PRESENCE optional }|
    { ID id-E-DCH-Information-Reconfig                  CRITICALITY reject  EXTENSION E-DCH-Information-Reconfig         PRESENCE optional }|
    { ID id-E-DCH-Serving-RL-ID                         CRITICALITY reject  EXTENSION RL-ID                              PRESENCE optional }|
    { ID id-E-DCH-768-Information-Reconfig              CRITICALITY reject  EXTENSION E-DCH-768-Information-Reconfig     PRESENCE optional }|
    { ID id-E-DCH-LCR-Information-Reconfig              CRITICALITY reject  EXTENSION E-DCH-LCR-Information-Reconfig     PRESENCE optional },
    ...
}

UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ UL-CCTrCH-
InformationModifyItemIE-RL-ReconfRqstTDD}}

UL-CCTrCH-InformationModifyItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD
    PRESENCE mandatory}
}

UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
```

```
    cCTrCH-ID                                       CCTrCH-ID,
    tFCS                                            TFCS            OPTIONAL,
    punctureLimit                                   PunctureLimit   OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-SIRTarget        CRITICALITY reject      EXTENSION UL-SIR        PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ UL-CCTrCH-
InformationDeleteItemIE-RL-ReconfRqstTDD}}

UL-CCTrCH-InformationDeleteItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD            CRITICALITY notify  TYPE UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD
        PRESENCE mandatory }
}

UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                                       CCTrCH-ID,
    iE-Extensions                                   ProtocolExtensionContainer { { UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ DL-CCTrCH-
InformationModifyItemIE-RL-ReconfRqstTDD}}

DL-CCTrCH-InformationModifyItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD        CRITICALITY notify      TYPE DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD
    PRESENCE mandatory }
}

DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                                       CCTrCH-ID,
    tFCS                                            TFCS            OPTIONAL,
    punctureLimit                                   PunctureLimit   OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD   CRITICALITY ignore  EXTENSION  DL-DPCH-LCR-InformationModify-ModifyList-RL-
ReconfRqstTDD       PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
```

```
-- This DPCH LCR Information is the for the first RL repetition, DPCH LCR information for RL repetitions 2 and on, should be defined in MultipleRL-
DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD.
    { ID id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfRqstTDD  CRITICALITY ignore  EXTENSION DL-Power        PRESENCE optional }|
-- This power Information is the for the first RL repetition, power information for RL repetitions 2 and on, should be defined in MultipleRL-DL-
CCTrCH-InformationModifyList-RL-ReconfRqstTDD.
    { ID id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfRqstTDD  CRITICALITY ignore  EXTENSION DL-Power        PRESENCE optional }|
-- This power Information is the for the first RL repetition, power information for RL repetitions 2 and on, should be defined in MultipleRL-DL-
CCTrCH-InformationModifyList-RL-ReconfRqstTDD.
    { ID id-RL-ID                                                  CRITICALITY ignore  EXTENSION RL-ID           PRESENCE optional }|
-- This is the RL ID for the first RL repetition.
    { ID id-multipleRL-dl-CCTrCH-InformationModifyList-RL-ReconfRqstTDD CRITICALITY reject  EXTENSION              MultipleRL-DL-CCTrCH-
InformationModifyList-RL-ReconfRqstTDD  PRESENCE optional   },
-- This CCTrCH Information is the for the 2nd and beyond RL repetitions.
    ...
}

MultipleRL-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF  MultipleRL-DL-CCTrCH-InformationModifyListIE-
RL-ReconfRqstTDD
--Includes the 2nd through the max number of radio link information repetitions.

MultipleRL-DL-CCTrCH-InformationModifyListIE-RL-ReconfRqstTDD ::= SEQUENCE {
    dl-DPCH-LCR-InformationModifyList                       DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD  OPTIONAL,
    cCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfRqstTDD      DL-Power                                           OPTIONAL,
    cCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfRqstTDD      DL-Power                                           OPTIONAL,
    rL-ID                                                   RL-ID                                                  OPTIONAL,
    ...
}

DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD ::= SEQUENCE {
    dL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD       DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD   OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTSLCRs)) OF DL-Timeslot-LCR-InformationModify-
ModifyItem-RL-ReconfRqstTDD

DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfRqstTDD    ::= SEQUENCE {
    timeSlotLCR                             TimeSlotLCR,
    maxPowerLCR                             DL-Power    OPTIONAL,
    minPowerLCR                             DL-Power    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfRqstTDD-ExtIEs} }
        OPTIONAL,
    ...
}

DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ DL-CCTrCH-
InformationDeleteItemIE-RL-ReconfRqstTDD}}

DL-CCTrCH-InformationDeleteItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD        CRITICALITY notify  TYPE DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD
    PRESENCE mandatory }
}

DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                                       CCTrCH-ID,
    iE-Extensions                                   ProtocolExtensionContainer { { DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstTDD

DCH-DeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
    dCH-ID                                          DCH-ID,
    iE-Extensions                                   ProtocolExtensionContainer { { DCH-DeleteItem-RL-ReconfRqstTDD-ExtIEs} }      OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Multiple-RL-Information-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF RL-Information-RL-ReconfRqstTDD
--Includes the 2nd through the max number of radio link information repetitions.

RL-Information-RL-ReconfRqstTDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    maxDL-Power                                 DL-Power        OPTIONAL,
    minDL-Power                                 DL-Power        OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfRqstTDD-ExtIEs} }      OPTIONAL,
    ...
}

RL-InformationItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-Specific-DCH-Info                CRITICALITY ignore      EXTENSION   RL-Specific-DCH-Info              PRESENCE optional }|
    { ID id-UL-Synchronisation-Parameters-LCR   CRITICALITY ignore      EXTENSION   UL-Synchronisation-Parameters-LCR  PRESENCE optional },
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION RESPONSE
--
```

```
-- **************************************************************

RadioLinkReconfigurationResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkReconfigurationResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationResponse-Extensions}}              OPTIONAL,
    ...
}

RadioLinkReconfigurationResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID                  CRITICALITY ignore      TYPE    CRNC-CommunicationContextID                 PRESENCE
    mandatory   } |
    { ID    id-RL-InformationResponseList-RL-ReconfRsp      CRITICALITY ignore      TYPE    RL-InformationResponseList-RL-ReconfRsp     PRESENCE
    optional    } |
    { ID    id-CriticalityDiagnostics                       CRITICALITY ignore      TYPE    CriticalityDiagnostics                      PRESENCE
    optional    },
    ...
}

RadioLinkReconfigurationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TargetCommunicationControlPortID    CRITICALITY ignore      EXTENSION CommunicationControlPortID          PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information-Response     CRITICALITY ignore      EXTENSION HSDSCH-FDD-Information-Response     PRESENCE optional }|
    -- FDD only
    { ID id-HSDSCH-TDD-Information-Response     CRITICALITY ignore      EXTENSION HSDSCH-TDD-Information-Response     PRESENCE optional }|
    -- TDD only
    { ID id-E-DCH-Information-Response          CRITICALITY ignore      EXTENSION E-DCH-Information-Response          PRESENCE optional }|
    { ID id-MAChs-ResetIndicator                CRITICALITY ignore      EXTENSION MAChs-ResetIndicator                PRESENCE optional }|
    { ID id-ContinuousPacketConnectivityHS-SCCH-less-Information-Response       CRITICALITY ignore                  EXTENSION
    ContinuousPacketConnectivityHS-SCCH-less-Information-Response           PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-ReconfRsp ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{RL-InformationResponseItemIE-RL-
ReconfRsp}}

RL-InformationResponseItemIE-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-ReconfRsp CRITICALITY ignore  TYPE RL-InformationResponseItem-RL-ReconfRsp  PRESENCE mandatory }
}

RL-InformationResponseItem-RL-ReconfRsp ::= SEQUENCE {
    rL-ID                                   RL-ID,
    dCH-InformationResponseList-RL-ReconfRsp    DCH-InformationResponseList-RL-ReconfRsp                                    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationResponseItem-RL-ReconfRsp-ExtIEs} }    OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-ReconfRsp-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-UpdatedIndicator          CRITICALITY ignore  EXTENSION DL-PowerBalancing-UpdatedIndicator          PRESENCE optional
}|
    -- FDD only
    { ID id-E-DCH-RL-Set-ID                             CRITICALITY ignore  EXTENSION RL-Set-ID                                   PRESENCE optional
}|
    { ID id-E-DCH-FDD-DL-Control-Channel-Information    CRITICALITY ignore  EXTENSION E-DCH-FDD-DL-Control-Channel-Information    PRESENCE optional
}|
```

```
    { ID id-E-DCH-FDD-Information-Response              CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response              PRESENCE optional
},
    ...
}

DCH-InformationResponseList-RL-ReconfRsp::= ProtocolIE-Single-Container {{ DCH-InformationResponseListIEs-RL-ReconfRsp }}

DCH-InformationResponseListIEs-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse   CRITICALITY ignore    TYPE DCH-InformationResponse    PRESENCE mandatory }
}

-- **************************************************************
--
-- RADIO LINK DELETION REQUEST
--
-- **************************************************************

RadioLinkDeletionRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkDeletionRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkDeletionRequest-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkDeletionRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-NodeB-CommunicationContextID                CRITICALITY reject  TYPE NodeB-CommunicationContextID           PRESENCE mandatory }|
    { ID    id-CRNC-CommunicationContextID                 CRITICALITY reject  TYPE CRNC-CommunicationContextID            PRESENCE mandatory }|
    { ID    id-RL-informationList-RL-DeletionRqst          CRITICALITY notify  TYPE RL-informationList-RL-DeletionRqst     PRESENCE mandatory },
    ...
}

RadioLinkDeletionRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-informationList-RL-DeletionRqst ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{RL-informationItemIE-RL-DeletionRqst}}

RL-informationItemIE-RL-DeletionRqst NBAP-PROTOCOL-IES ::= {
    { ID id-RL-informationItem-RL-DeletionRqst      CRITICALITY notify          TYPE RL-informationItem-RL-DeletionRqst   PRESENCE mandatory }
}

RL-informationItem-RL-DeletionRqst ::= SEQUENCE {
    rL-ID                                   RL-ID,
    iE-Extensions                           ProtocolExtensionContainer { { RL-informationItem-RL-DeletionRqst-ExtIEs} }    OPTIONAL,
    ...
 }

RL-informationItem-RL-DeletionRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
```

```
-- RADIO LINK DELETION RESPONSE
--
-- **************************************************************

RadioLinkDeletionResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkDeletionResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkDeletionResponse-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkDeletionResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID          CRITICALITY ignore  TYPE CRNC-CommunicationContextID                   PRESENCE mandatory   }|
    { ID    id-CriticalityDiagnostics               CRITICALITY ignore  TYPE CriticalityDiagnostics                         PRESENCE optional },
    ...
}

RadioLinkDeletionResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DL POWER CONTROL REQUEST FDD
--
-- **************************************************************

DL-PowerControlRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{DL-PowerControlRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{DL-PowerControlRequest-Extensions}}                   OPTIONAL,
    ...
}

DL-PowerControlRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID        CRITICALITY ignore  TYPE NodeB-CommunicationContextID               PRESENCE mandatory }|
    { ID id-PowerAdjustmentType                 CRITICALITY ignore  TYPE PowerAdjustmentType                        PRESENCE mandatory }|
    { ID id-DLReferencePower                    CRITICALITY ignore  TYPE DL-Power                                   PRESENCE conditional }|
    -- This IE shall be present if the Adjustment Type IE is set to 'Common'
    { ID id-InnerLoopDLPCStatus                 CRITICALITY ignore  TYPE InnerLoopDLPCStatus                        PRESENCE optional }|
    { ID id-DLReferencePowerList-DL-PC-Rqst     CRITICALITY ignore  TYPE DL-ReferencePowerInformationList-DL-PC-Rqst PRESENCE conditional }|
    -- This IE shall be present if the Adjustment Type IE is set to 'Individual'
    { ID id-MaxAdjustmentStep                   CRITICALITY ignore  TYPE MaxAdjustmentStep                          PRESENCE conditional }|
    -- This IE shall be present if the Adjustment Type IE is set to 'Common' or 'Individual'
    { ID id-AdjustmentPeriod                    CRITICALITY ignore  TYPE AdjustmentPeriod                           PRESENCE conditional }|
    -- This IE shall be present if the Adjustment Type IE is set to 'Common' or 'Individual'
    { ID id-AdjustmentRatio                     CRITICALITY ignore  TYPE ScaledAdjustmentRatio                      PRESENCE conditional },
    -- This IE shall be present if the Adjustment Type IE is set to 'Common' or 'Individual'
    ...
}

DL-PowerControlRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
DL-ReferencePowerInformationList-DL-PC-Rqst ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{DL-
ReferencePowerInformationItemIE-DL-PC-Rqst }}

DL-ReferencePowerInformationItemIE-DL-PC-Rqst NBAP-PROTOCOL-IES ::= {
    { ID id-DL-ReferencePowerInformationItem-DL-PC-Rqst         CRITICALITY ignore          TYPE DL-ReferencePowerInformationItem-DL-PC-Rqst
    PRESENCE mandatory }
}

DL-ReferencePowerInformationItem-DL-PC-Rqst ::= SEQUENCE {
    rL-ID                                   RL-ID,
    dl-ReferencePower                       DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { DL-ReferencePowerInformationItem-DL-PC-Rqst-ExtIEs } }    OPTIONAL,
    ...
}

DL-ReferencePowerInformationItem-DL-PC-Rqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DL POWER TIMESLOT CONTROL REQUEST TDD
--
-- **************************************************************

DL-PowerTimeslotControlRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{DL-PowerTimeslotControlRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{DL-PowerTimeslotControlRequest-Extensions}}                OPTIONAL,
    ...
}

DL-PowerTimeslotControlRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID    CRITICALITY ignore      TYPE NodeB-CommunicationContextID                PRESENCE mandatory } |
    { ID id-TimeslotISCPInfo                CRITICALITY ignore      TYPE DL-TimeslotISCPInfo                         PRESENCE optional },
    -- Mandatory for 3.84Mcps TDD and 7.68Mcps TDD, Not Applicable to 1.28Mcps TDD
    ...
}

DL-PowerTimeslotControlRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TimeslotISCPInfoList-LCR-DL-PC-RqstTDD      CRITICALITY ignore          EXTENSION   DL-TimeslotISCPInfoLCR   PRESENCE optional }|
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-PrimCCPCH-RSCP-DL-PC-RqstTDD                CRITICALITY ignore          EXTENSION PrimaryCCPCH-RSCP          PRESENCE optional }|
    { ID id-PrimaryCCPCH-RSCP-Delta                     CRITICALITY ignore          EXTENSION PrimaryCCPCH-RSCP-Delta    PRESENCE optional },
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT INITIATION REQUEST
--
-- **************************************************************

DedicatedMeasurementInitiationRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{DedicatedMeasurementInitiationRequest-IEs}},
```

```
    protocolExtensions      ProtocolExtensionContainer  {{DedicatedMeasurementInitiationRequest-Extensions}}          OPTIONAL,
    ...
}

DedicatedMeasurementInitiationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID            CRITICALITY reject  TYPE NodeB-CommunicationContextID              PRESENCE mandatory } |
    { ID id-MeasurementID                           CRITICALITY reject  TYPE MeasurementID                          PRESENCE mandatory } |
    { ID id-DedicatedMeasurementObjectType-DM-Rqst  CRITICALITY reject  TYPE DedicatedMeasurementObjectType-DM-Rqst  PRESENCE mandatory } |
    { ID id-DedicatedMeasurementType                CRITICALITY reject  TYPE DedicatedMeasurementType               PRESENCE mandatory } |
    { ID id-MeasurementFilterCoefficient            CRITICALITY reject  TYPE MeasurementFilterCoefficient           PRESENCE optional } |
    { ID id-ReportCharacteristics                   CRITICALITY reject  TYPE ReportCharacteristics                  PRESENCE mandatory } |
    { ID id-CFNReportingIndicator                   CRITICALITY reject  TYPE FNReportingIndicator                   PRESENCE mandatory } |
    { ID id-CFN                                     CRITICALITY reject  TYPE CFN                                    PRESENCE optional } ,
    ...
}

DedicatedMeasurementInitiationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-NumberOfReportedCellPortions            CRITICALITY reject  EXTENSION NumberOfReportedCellPortions      PRESENCE conditional }|
    -- The IE shall be present if the Dedicated Measurement Type IE is set to 'Best Cell Portions', FDD only.
    { ID id-MeasurementRecoveryBehavior             CRITICALITY ignore  EXTENSION MeasurementRecoveryBehavior            PRESENCE optional }|
    { ID id-AlternativeFormatReportingIndicator     CRITICALITY ignore  EXTENSION AlternativeFormatReportingIndicator    PRESENCE optional },
    ...
}

DedicatedMeasurementObjectType-DM-Rqst ::= CHOICE {
    rL                          RL-DM-Rqst,
    rLS                         RL-Set-DM-Rqst,         -- for FDD only
    all-RL                      AllRL-DM-Rqst,
    all-RLS                     AllRL-Set-DM-Rqst,      -- for FDD only
    ...
}

RL-DM-Rqst ::= SEQUENCE {
    rL-InformationList                  RL-InformationList-DM-Rqst,
    iE-Extensions                       ProtocolExtensionContainer { { RLItem-DM-Rqst-ExtIEs } }                    OPTIONAL,
    ...
}

RLItem-DM-Rqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-DM-Rqst }}

RL-InformationItemIE-DM-Rqst NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rqst   CRITICALITY reject TYPE RL-InformationItem-DM-Rqst     PRESENCE mandatory }
}

RL-InformationItem-DM-Rqst ::= SEQUENCE {
        rL-ID                           RL-ID,
        dPCH-ID                         DPCH-ID             OPTIONAL, -- for TDD only
        iE-Extensions                   ProtocolExtensionContainer { { RL-InformationItem-DM-Rqst-ExtIEs } }         OPTIONAL,
        ...
    }
```

```
RL-InformationItem-DM-Rqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-PUSCH-Info-DM-Rqst      CRITICALITY reject              EXTENSION   PUSCH-Info-DM-Rqst                    PRESENCE optional}|
    -- TDD only
    { ID id-HSSICH-Info-DM-Rqst     CRITICALITY reject              EXTENSION   HSSICH-Info-DM-Rqst                   PRESENCE optional}|
    -- TDD only
    { ID id-DPCH-ID768-DM-Rqst      CRITICALITY reject              EXTENSION   DPCH-ID768                            PRESENCE optional}|
    -- 7.68Mcps TDD only
    { ID id-HSSICH-InfoExt-DM-Rqst  CRITICALITY reject              EXTENSION   HSSICH-InfoExt-DM-Rqst                PRESENCE optional},
    -- 1.28Mcps TDD only, used if the HS-SICH identity has a value larger than 31
    ...
}

PUSCH-Info-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF PUSCH-ID

HSSICH-Info-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfHSSICHs)) OF HS-SICH-ID

HSSICH-InfoExt-DM-Rqst::= SEQUENCE (SIZE (1..maxNrOfHSSICHs)) OF Extended-HS-SICH-ID
-- 1.28Mcps TDD only, used if the HS-SICH identity has a value larger than 31

RL-Set-DM-Rqst ::= SEQUENCE {
    rL-Set-InformationList-DM-Rqst          RL-Set-InformationList-DM-Rqst,
    iE-Extensions                           ProtocolExtensionContainer { { RL-SetItem-DM-Rqst-ExtIEs } }              OPTIONAL,
    ...
}

RL-SetItem-DM-Rqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rqst                  ::= SEQUENCE (SIZE(1..maxNrOfRLSets)) OF RL-Set-InformationItem-DM-Rqst

RL-Set-InformationItem-DM-Rqst ::= SEQUENCE {
    rL-Set-ID                       RL-Set-ID,
    iE-Extensions                   ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AllRL-DM-Rqst ::= NULL

AllRL-Set-DM-Rqst ::= NULL

-- **************************************************************
--
-- DEDICATED MEASUREMENT INITIATION RESPONSE
--
-- **************************************************************

DedicatedMeasurementInitiationResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{DedicatedMeasurementInitiationResponse-IEs}},
```

```
    protocolExtensions      ProtocolExtensionContainer  {{DedicatedMeasurementInitiationResponse-Extensions}}         OPTIONAL,
    ...
}

DedicatedMeasurementInitiationResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID             CRITICALITY ignore  TYPE CRNC-CommunicationContextID              PRESENCE mandatory } |
    { ID id-MeasurementID                           CRITICALITY ignore  TYPE MeasurementID                            PRESENCE mandatory } |
    { ID id-DedicatedMeasurementObjectType-DM-Rsp   CRITICALITY ignore  TYPE DedicatedMeasurementObjectType-DM-Rsp    PRESENCE optional } |
    { ID id-CriticalityDiagnostics                  CRITICALITY ignore  TYPE CriticalityDiagnostics                   PRESENCE optional },
    ...
}

DedicatedMeasurementInitiationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
     { ID id-MeasurementRecoverySupportIndicator    CRITICALITY ignore  EXTENSION MeasurementRecoverySupportIndicator    PRESENCE optional},
    ...
}

DedicatedMeasurementObjectType-DM-Rsp ::= CHOICE {
    rL                          RL-DM-Rsp,
    rLS                         RL-Set-DM-Rsp,  -- for FDD only
    all-RL                      RL-DM-Rsp,
    all-RLS                     RL-Set-DM-Rsp,  -- for FDD only
    ...
}

RL-DM-Rsp ::= SEQUENCE {
    rL-InformationList-DM-Rsp           RL-InformationList-DM-Rsp,
    iE-Extensions                       ProtocolExtensionContainer { { RLItem-DM-Rsp-ExtIEs } }                   OPTIONAL,
    ...
}

RLItem-DM-Rsp-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-DM-Rsp }}

RL-InformationItemIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rsp   CRITICALITY ignore  TYPE RL-InformationItem-DM-Rsp      PRESENCE mandatory }
}

RL-InformationItem-DM-Rsp ::= SEQUENCE {
    rL-ID                               RL-ID,
    dPCH-ID                             DPCH-ID         OPTIONAL,   -- for TDD only
    dedicatedMeasurementValue           DedicatedMeasurementValue,
    cFN                                 CFN             OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { RL-InformationItem-DM-Rsp-ExtIEs } }           OPTIONAL,
    ...
}

RL-InformationItem-DM-Rsp-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-PUSCH-Info-DM-Rsp       CRITICALITY reject              EXTENSION   PUSCH-Info-DM-Rsp                     PRESENCE optional}|
    -- TDD only
```

```
    -- This PUSCH Information is the for the first PUSCH repetition, PUSCH information for PUSCH repetitions 2 and on, should be defined in
Multiple-PUSCH-InfoList-DM-Rsp.
    { ID id-HSSICH-Info-DM-Rsp      CRITICALITY reject              EXTENSION   HS-SICH-ID                                  PRESENCE optional}|
    -- TDD only
    { ID id-multiple-DedicatedMeasurementValueList-TDD-DM-Rsp   CRITICALITY ignore  EXTENSION Multiple-DedicatedMeasurementValueList-TDD-DM-Rsp
    PRESENCE optional   }|
    -- Applicable to 3.84Mcps TDD only. This list of dedicated measurement values is used for the 2nd and beyond measurements of a RL when multiple
dedicated measurement values need to be reported.
    { ID id-multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp   CRITICALITY ignore  EXTENSION Multiple-DedicatedMeasurementValueList-LCR-TDD-
DM-Rsp  PRESENCE optional   }|
    -- Applicable to 1.28Mcps TDD only. This list of dedicated measurement values is used for the 2nd and beyond measurements of a RL when multiple
dedicated measurement values need to be reported.
    { ID id-multiple-PUSCH-InfoList-DM-Rsp  CRITICALITY ignore  EXTENSION Multiple-PUSCH-InfoList-DM-Rsp           PRESENCE optional }|
    -- TDD only, This PUSCH information is the for the 2nd and beyond PUSCH repetitions.
    { ID id-multiple-HSSICHMeasurementValueList-TDD-DM-Rsp  CRITICALITY ignore  EXTENSION Multiple-HSSICHMeasurementValueList-TDD-DM-RspPRESENCE
optional    }|
    -- TDD only. This list of HS-SICH measurement values is used for the 2nd and beyond measurements of a RL when multiple HS-SICH measurement
values need to be reported.
    { ID id-DPCH-ID768-DM-Rsp       CRITICALITY reject              EXTENSION   DPCH-ID768      PRESENCE optional}|    -- 7.68Mcps TDD only
    { ID id-multiple-DedicatedMeasurementValueList-768-TDD-DM-Rsp   CRITICALITY ignore  EXTENSION Multiple-DedicatedMeasurementValueList-768-TDD-
DM-Rsp  PRESENCE optional   }|
    -- Applicable to 7.68Mcps TDD only. This list of dedicated measurement values is used for the 2nd and beyond measurements of a RL when multiple
dedicated measurement values need to be reported.
    {ID id-Extended-HS-SICH-ID      CRITICALITY reject              EXTENSION   Extended-HS-SICH-ID                         PRESENCE optional},
    -- 1.28Mcps TDD only, used if the HS-SICH identity has a value larger than 31
    ...
}

PUSCH-Info-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF PUSCH-ID

Multiple-PUSCH-InfoList-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfPUSCHs-1)) OF Multiple-PUSCH-InfoListIE-DM-Rsp
-- Includes the 2nd through the max number of PUSCH information repetitions.

Multiple-PUSCH-InfoListIE-DM-Rsp ::= SEQUENCE {
    pUSCH-ID                            PUSCH-ID                                                                    OPTIONAL,
    dedicatedMeasurementValue           DedicatedMeasurementValue                                                   OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Multiple-PUSCH-InfoListIE-DM-Rsp-ExtIEs} }   OPTIONAL,
    ...
}

Multiple-PUSCH-InfoListIE-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Multiple-DedicatedMeasurementValueList-TDD-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfDPCHsPerRL-1)) OF Multiple-DedicatedMeasurementValueItem-TDD-DM-
Rsp

Multiple-DedicatedMeasurementValueItem-TDD-DM-Rsp ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    dedicatedMeasurementValue       DedicatedMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer { { Multiple-DedicatedMeasurementValueItem-TDD-DM-Rsp-ExtIEs} }   OPTIONAL,
    ...
}
```

```
Multiple-DedicatedMeasurementValueItem-TDD-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfDPCHsLCRPerRL-1)) OF Multiple-DedicatedMeasurementValueItem-
LCR-TDD-DM-Rsp

Multiple-DedicatedMeasurementValueItem-LCR-TDD-DM-Rsp ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    dedicatedMeasurementValue       DedicatedMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer { { Multiple-DedicatedMeasurementValueItem-LCR-TDD-DM-Rsp-ExtIEs} }
    OPTIONAL,
    ...
}

Multiple-DedicatedMeasurementValueItem-LCR-TDD-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Multiple-HSSICHMeasurementValueList-TDD-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfHSSICHs-1)) OF Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp

Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp ::= SEQUENCE {
    hsSICH-ID                       HS-SICH-ID,
    dedicatedMeasurementValue       DedicatedMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer { { Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp-ExtIEs} }   OPTIONAL,
    ...
}

Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-HS-SICH-ID                     CRITICALITY ignore  EXTENSION Extended-HS-SICH-ID          PRESENCE optional},
     -- 1.28Mcps TDD only, used if the HS-SICH identity has a value larger than 31
    ...
}

Multiple-DedicatedMeasurementValueList-768-TDD-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfDPCHs768PerRL-1)) OF Multiple-DedicatedMeasurementValueItem-
768-TDD-DM-Rsp

Multiple-DedicatedMeasurementValueItem-768-TDD-DM-Rsp ::= SEQUENCE {
    dPCH-ID768                      DPCH-ID768,
    dedicatedMeasurementValue       DedicatedMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer { { Multiple-DedicatedMeasurementValueItem-768-TDD-DM-Rsp-ExtIEs} }
    OPTIONAL,
    ...
}

Multiple-DedicatedMeasurementValueItem-768-TDD-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Rsp ::= SEQUENCE {
    rL-Set-InformationList-DM-Rsp       RL-Set-InformationList-DM-Rsp,
    iE-Extensions                       ProtocolExtensionContainer { { RL-SetItem-DM-Rsp-ExtIEs } }                   OPTIONAL,
    ...
}
```

```
RL-SetItem-DM-Rsp-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container {{ RL-Set-InformationItemIE-DM-Rsp }}

RL-Set-InformationItemIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rsp       CRITICALITY ignore      TYPE    RL-Set-InformationItem-DM-Rsp       PRESENCE mandatory}
}

RL-Set-InformationItem-DM-Rsp ::= SEQUENCE {
    rL-Set-ID                       RL-Set-ID,
    dedicatedMeasurementValue       DedicatedMeasurementValue,
    cFN                             CFN                 OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rsp-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT INITIATION FAILURE
--
-- **************************************************************

DedicatedMeasurementInitiationFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{DedicatedMeasurementInitiationFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{DedicatedMeasurementInitiationFailure-Extensions}}          OPTIONAL,
    ...
}

DedicatedMeasurementInitiationFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID          CRITICALITY     ignore          TYPE    CRNC-CommunicationContextID     PRESENCE mandatory   }
|
    { ID    id-MeasurementID                        CRITICALITY     ignore          TYPE    MeasurementID                   PRESENCE mandatory   }
|
    { ID    id-Cause                                CRITICALITY     ignore          TYPE    Cause                           PRESENCE mandatory   }
|
    { ID    id-CriticalityDiagnostics               CRITICALITY     ignore          TYPE    CriticalityDiagnostics          PRESENCE optional },
    ...
}

DedicatedMeasurementInitiationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT REPORT
--
```

```
-- **************************************************************

DedicatedMeasurementReport ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{DedicatedMeasurementReport-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{DedicatedMeasurementReport-Extensions}}                    OPTIONAL,
    ...
}

DedicatedMeasurementReport-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID             CRITICALITY ignore  TYPE CRNC-CommunicationContextID             PRESENCE mandatory   } |
    { ID id-MeasurementID                           CRITICALITY ignore  TYPE MeasurementID                           PRESENCE mandatory   } |
    { ID id-DedicatedMeasurementObjectType-DM-Rprt  CRITICALITY ignore  TYPE DedicatedMeasurementObjectType-DM-Rprt   PRESENCE mandatory   } ,
    ...
}

DedicatedMeasurementReport-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MeasurementRecoveryReportingIndicator   CRITICALITY ignore  EXTENSION   MeasurementRecoveryReportingIndicator   PRESENCE optional },
    ...
}

DedicatedMeasurementObjectType-DM-Rprt ::= CHOICE {
    rL                                  RL-DM-Rprt,
    rLS                                 RL-Set-DM-Rprt,         -- for FDD only
    all-RL                              RL-DM-Rprt,
    all-RLS                             RL-Set-DM-Rprt,         -- for FDD only
    ...
}

RL-DM-Rprt ::= SEQUENCE {
    rL-InformationList-DM-Rprt          RL-InformationList-DM-Rprt,
    iE-Extensions                       ProtocolExtensionContainer { { RLItem-DM-Rprt-ExtIEs } }                     OPTIONAL,
    ...
}

RLItem-DM-Rprt-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rprt ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-DM-Rprt }}

RL-InformationItemIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rprt   CRITICALITY ignore TYPE RL-InformationItem-DM-Rprt     PRESENCE mandatory }
}

RL-InformationItem-DM-Rprt ::= SEQUENCE {
    rL-ID                           RL-ID,
    dPCH-ID                         DPCH-ID     OPTIONAL,       -- for TDD only
    dedicatedMeasurementValueInformation    DedicatedMeasurementValueInformation,
    iE-Extensions                   ProtocolExtensionContainer { { RL-InformationItem-DM-Rprt-ExtIEs } }          OPTIONAL,
    ...
}

RL-InformationItem-DM-Rprt-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PUSCH-Info-DM-Rprt       CRITICALITY reject              EXTENSION   PUSCH-Info-DM-Rprt                   PRESENCE optional}|
```

```
    -- TDD only
    -- This PUSCH Information is the for the first PUSCH repetition, PUSCH information for PUSCH repetitions 2 and on, should be defined in
Multiple-PUSCH-InfoList-DM-Rprt.
    {ID id-HSSICH-Info-DM-Rprt      CRITICALITY reject              EXTENSION   HS-SICH-ID                              PRESENCE optional}|
    -- TDD only
    { ID id-multiple-PUSCH-InfoList-DM-Rprt CRITICALITY ignore      EXTENSION Multiple-PUSCH-InfoList-DM-Rprt         PRESENCE optional }|
    -- TDD only, This PUSCH information is the for the 2nd and beyond PUSCH repetitions.
    { ID id-DPCH-ID768-DM-Rprt      CRITICALITY reject              EXTENSION   DPCH-ID768                              PRESENCE optional}|
    -- 7.68Mcps TDD only
    { ID id-Extended-HS-SICH-ID     CRITICALITY ignore              EXTENSION Extended-HS-SICH-ID                     PRESENCE optional},
    -- 1.28Mcps TDD only, used if the HS-SICH identity has a value larger than 31
    ...
}

PUSCH-Info-DM-Rprt ::= SEQUENCE (SIZE (0..maxNrOfPUSCHs)) OF PUSCH-ID

Multiple-PUSCH-InfoList-DM-Rprt ::= SEQUENCE (SIZE (1.. maxNrOfPUSCHs-1)) OF Multiple-PUSCH-InfoListIE-DM-Rprt
-- Includes the 2nd through the max number of PUSCH information repetitions.

Multiple-PUSCH-InfoListIE-DM-Rprt ::= SEQUENCE {
    pUSCH-ID                                PUSCH-ID                                                                OPTIONAL,
    dedicatedMeasurementValue               DedicatedMeasurementValue                                               OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { Multiple-PUSCH-InfoListIE-DM-Rprt-ExtIEs} }   OPTIONAL,
    ...
}

Multiple-PUSCH-InfoListIE-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Rprt ::= SEQUENCE {
    rL-Set-InformationList-DM-Rprt      RL-Set-InformationList-DM-Rprt,
    iE-Extensions                       ProtocolExtensionContainer { { RL-SetItem-DM-Rprt-ExtIEs } }                OPTIONAL,
    ...
}

RL-SetItem-DM-Rprt-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rprt ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container {{ RL-Set-InformationItemIE-DM-Rprt }}

RL-Set-InformationItemIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rprt  CRITICALITY ignore  TYPE RL-Set-InformationItem-DM-Rprt                  PRESENCE mandatory   }
}

RL-Set-InformationItem-DM-Rprt ::= SEQUENCE {
    rL-Set-ID                       RL-Set-ID,
    dedicatedMeasurementValueInformation    DedicatedMeasurementValueInformation,
    iE-Extensions                   ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT TERMINATION REQUEST
--
-- **************************************************************

DedicatedMeasurementTerminationRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{DedicatedMeasurementTerminationRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{DedicatedMeasurementTerminationRequest-Extensions}}         OPTIONAL,
    ...
}

DedicatedMeasurementTerminationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-NodeB-CommunicationContextID         CRITICALITY     ignore          TYPE    NodeB-CommunicationContextID    PRESENCE mandatory   }
|
    { ID    id-MeasurementID                        CRITICALITY     ignore          TYPE    MeasurementID                   PRESENCE mandatory   },
    ...
}

DedicatedMeasurementTerminationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT FAILURE INDICATION
--
-- **************************************************************

DedicatedMeasurementFailureIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{DedicatedMeasurementFailureIndication-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{DedicatedMeasurementFailureIndication-Extensions}}          OPTIONAL,
    ...
}

DedicatedMeasurementFailureIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID      CRITICALITY     ignore      TYPE    CRNC-CommunicationContextID       PRESENCE mandatory   } |
    { ID    id-MeasurementID                    CRITICALITY     ignore      TYPE    MeasurementID                     PRESENCE mandatory   } |
    { ID    id-Cause                            CRITICALITY     ignore      TYPE    Cause                             PRESENCE mandatory   },
    ...
}

DedicatedMeasurementFailureIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK FAILURE INDICATION
--
-- **************************************************************
```

```
RadioLinkFailureIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkFailureIndication-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkFailureIndication-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkFailureIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID              CRITICALITY ignore          TYPE CRNC-CommunicationContextID        PRESENCE mandatory   }
|
    { ID    id-Reporting-Object-RL-FailureInd           CRITICALITY ignore          TYPE Reporting-Object-RL-FailureInd     PRESENCE mandatory   }
,
    ...
}

RadioLinkFailureIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Reporting-Object-RL-FailureInd ::= CHOICE {
    rL                      RL-RL-FailureInd,
    rL-Set                  RL-Set-RL-FailureInd, --FDD only
    ...,
    cCTrCH                  CCTrCH-RL-FailureInd --TDD only
}

RL-RL-FailureInd ::= SEQUENCE {
    rL-InformationList-RL-FailureInd        RL-InformationList-RL-FailureInd,
    iE-Extensions                           ProtocolExtensionContainer { { RLItem-RL-FailureInd-ExtIEs } }          OPTIONAL,
    ...
}

RLItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-FailureInd ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-RL-FailureInd}}

RL-InformationItemIE-RL-FailureInd NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-FailureInd            CRITICALITY ignore          TYPE RL-InformationItem-RL-FailureInd      PRESENCE mandatory }
}

RL-InformationItem-RL-FailureInd ::= SEQUENCE {
    rL-ID                                   RL-ID,
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationItem-RL-FailureInd-ExtIEs } }     OPTIONAL,
    ...
}

RL-InformationItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-RL-FailureInd ::= SEQUENCE {
```

```
    rL-Set-InformationList-RL-FailureInd    RL-Set-InformationList-RL-FailureInd,
    iE-Extensions                           ProtocolExtensionContainer { { RL-SetItem-RL-FailureInd-ExtIEs } }        OPTIONAL,
    ...
}

RL-SetItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-RL-FailureInd ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container {{ RL-Set-InformationItemIE-RL-
FailureInd }}

RL-Set-InformationItemIE-RL-FailureInd NBAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-RL-FailureInd    CRITICALITY ignore      TYPE RL-Set-InformationItem-RL-FailureInd    PRESENCE mandatory   }
}

RL-Set-InformationItem-RL-FailureInd ::= SEQUENCE {
    rL-Set-ID               RL-Set-ID,
    cause                   Cause,
    iE-Extensions           ProtocolExtensionContainer { { RL-Set-InformationItem-RL-FailureInd-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-InformationItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-RL-FailureInd ::= SEQUENCE {
    rL-ID                                   RL-ID,
    cCTrCH-InformationList-RL-FailureInd    CCTrCH-InformationList-RL-FailureInd,
    iE-Extensions                           ProtocolExtensionContainer { { CCTrCHItem-RL-FailureInd-ExtIEs } }        OPTIONAL,
    ...
}

CCTrCHItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-InformationList-RL-FailureInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-
FailureInd}}

CCTrCH-InformationItemIE-RL-FailureInd NBAP-PROTOCOL-IES ::= {
    { ID id-CCTrCH-InformationItem-RL-FailureInd        CRITICALITY ignore      TYPE CCTrCH-InformationItem-RL-FailureInd      PRESENCE mandatory }
}

CCTrCH-InformationItem-RL-FailureInd ::= SEQUENCE {
    cCTrCH-ID                               CCTrCH-ID,
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { CCTrCH-InformationItem-RL-FailureInd-ExtIEs } }    OPTIONAL,
    ...
}

CCTrCH-InformationItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

-- **************************************************************
--
-- RADIO LINK PREEMPTION REQUIRED INDICATION
--
-- **************************************************************

RadioLinkPreemptionRequiredIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkPreemptionRequiredIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkPreemptionRequiredIndication-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkPreemptionRequiredIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID                CRITICALITY ignore  TYPE CRNC-CommunicationContextID                PRESENCE mandatory } |
    { ID id-RL-InformationList-RL-PreemptRequiredInd   CRITICALITY ignore  TYPE RL-InformationList-RL-PreemptRequiredInd   PRESENCE optional },
    ...
}

RadioLinkPreemptionRequiredIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-PreemptRequiredInd ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIE-RL-
PreemptRequiredInd}}

RL-InformationItemIE-RL-PreemptRequiredInd NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-PreemptRequiredInd    CRITICALITY ignore  TYPE RL-InformationItem-RL-PreemptRequiredInd   PRESENCE mandatory },
    ...
}

RL-InformationItem-RL-PreemptRequiredInd::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { {RL-InformationItem-RL-PreemptRequiredInd-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationItem-RL-PreemptRequiredInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RESTORE INDICATION
--
-- **************************************************************

RadioLinkRestoreIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkRestoreIndication-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkRestoreIndication-Extensions}}                   OPTIONAL,
    ...
}
```

```
RadioLinkRestoreIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID          CRITICALITY ignore  TYPE CRNC-CommunicationContextID             PRESENCE mandatory   } |
    { ID    id-Reporting-Object-RL-RestoreInd       CRITICALITY ignore  TYPE Reporting-Object-RL-RestoreInd          PRESENCE mandatory   },
    ...
}

RadioLinkRestoreIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Reporting-Object-RL-RestoreInd ::= CHOICE {
    rL                      RL-RL-RestoreInd, --TDD only
    rL-Set                  RL-Set-RL-RestoreInd, --FDD only
    ...,
    cCTrCH                  CCTrCH-RL-RestoreInd --TDD only
}

RL-RL-RestoreInd ::= SEQUENCE {
    rL-InformationList-RL-RestoreInd        RL-InformationList-RL-RestoreInd,
    iE-Extensions                           ProtocolExtensionContainer { { RLItem-RL-RestoreInd-ExtIEs } }          OPTIONAL,
    ...
}

RLItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{RL-InformationItemIE-RL-RestoreInd}}

RL-InformationItemIE-RL-RestoreInd NBAP-PROTOCOL-IES ::= {
    { ID    id-RL-InformationItem-RL-RestoreInd     CRITICALITY ignore      TYPE    RL-InformationItem-RL-RestoreInd        PRESENCE mandatory}
}

RL-InformationItem-RL-RestoreInd ::= SEQUENCE {
    rL-ID                                   RL-ID,
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationItem-RL-RestoreInd-ExtIEs } }   OPTIONAL,
    ...
}

RL-InformationItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-RL-RestoreInd ::= SEQUENCE {
    rL-Set-InformationList-RL-RestoreInd    RL-Set-InformationList-RL-RestoreInd,
    iE-Extensions                           ProtocolExtensionContainer { { RL-SetItem-RL-RestoreInd-ExtIEs } }        OPTIONAL,
    ...
}

RL-SetItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
RL-Set-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container {{ RL-Set-InformationItemIE-RL-
RestoreInd }}

RL-Set-InformationItemIE-RL-RestoreInd NBAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-RL-RestoreInd    CRITICALITY ignore      TYPE RL-Set-InformationItem-RL-RestoreInd  PRESENCE mandatory   }
}

RL-Set-InformationItem-RL-RestoreInd ::= SEQUENCE {
    rL-Set-ID               RL-Set-ID,
    iE-Extensions           ProtocolExtensionContainer { { RL-Set-InformationItem-RL-RestoreInd-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-InformationItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-RL-RestoreInd ::= SEQUENCE {
    rL-ID                                   RL-ID,
    cCTrCH-InformationList-RL-RestoreInd    CCTrCH-InformationList-RL-RestoreInd,
    iE-Extensions                           ProtocolExtensionContainer { { CCTrCHItem-RL-RestoreInd-ExtIEs } }        OPTIONAL,
    ...
}

CCTrCHItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-
RestoreInd}}

CCTrCH-InformationItemIE-RL-RestoreInd NBAP-PROTOCOL-IES ::= {
    { ID id-CCTrCH-InformationItem-RL-RestoreInd    CRITICALITY ignore  TYPE CCTrCH-InformationItem-RL-RestoreInd     PRESENCE mandatory }
}

CCTrCH-InformationItem-RL-RestoreInd ::= SEQUENCE {
    cCTrCH-ID                               CCTrCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { CCTrCH-InformationItem-RL-RestoreInd-ExtIEs } }    OPTIONAL,
    ...
}

CCTrCH-InformationItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


-- **************************************************************
--
-- COMPRESSED MODE COMMAND FDD
--
-- **************************************************************


CompressedModeCommand ::= SEQUENCE {
```

```
    protocolIEs             ProtocolIE-Container        {{CompressedModeCommand-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CompressedModeCommand-Extensions}}                  OPTIONAL,
    ...
}

CompressedModeCommand-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID            CRITICALITY ignore      TYPE NodeB-CommunicationContextID            PRESENCE mandatory } |
    { ID id-Active-Pattern-Sequence-Information     CRITICALITY ignore      TYPE Active-Pattern-Sequence-Information     PRESENCE mandatory },
    ...
}

CompressedModeCommand-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- ERROR INDICATION
--
-- **************************************************************

ErrorIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{ErrorIndication-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{ErrorIndication-Extensions}}      OPTIONAL,
    ...
}

ErrorIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID      CRITICALITY     ignore          TYPE    CRNC-CommunicationContextID      PRESENCE optional } |
    { ID    id-NodeB-CommunicationContextID     CRITICALITY     ignore          TYPE    NodeB-CommunicationContextID     PRESENCE optional } |
    { ID    id-Cause                            CRITICALITY     ignore          TYPE    Cause                            PRESENCE optional } |
    { ID    id-CriticalityDiagnostics           CRITICALITY     ignore          TYPE    CriticalityDiagnostics           PRESENCE optional },
    ...
}

ErrorIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- PRIVATE MESSAGE
--
-- **************************************************************

PrivateMessage ::= SEQUENCE {
    privateIEs      PrivateIE-Container {{PrivateMessage-IEs}},
    ...
}
```

```
PrivateMessage-IEs NBAP-PRIVATE-IES ::= {
    ...
}

-- **************************************************************
--
-- PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST FDD
--
-- **************************************************************

PhysicalSharedChannelReconfigurationRequestFDD ::= SEQUENCE {
    protocolIEs         ProtocolIE-Container        {{PhysicalSharedChannelReconfigurationRequestFDD-IEs}},
    protocolExtensions  ProtocolExtensionContainer  {{PhysicalSharedChannelReconfigurationRequestFDD-Extensions}}   OPTIONAL,
    ...
}

PhysicalSharedChannelReconfigurationRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                                          CRITICALITY reject  TYPE C-ID                                          PRESENCE mandatory
}|
    { ID id-ConfigurationGenerationID                     CRITICALITY reject  TYPE ConfigurationGenerationID                     PRESENCE mandatory
}|
    { ID id-SFN                                           CRITICALITY reject  TYPE SFN                                           PRESENCE optional }|
    { ID id-HS-PDSCH-HS-SCCH-E-AGCH-E-RGCH-E-HICH-MaxPower-PSCH-ReconfRqst      CRITICALITY reject                  TYPE MaximumTransmissionPower
                PRESENCE optional }|
    { ID id-HS-PDSCH-HS-SCCH-ScramblingCode-PSCH-ReconfRqst CRITICALITY reject  TYPE DL-ScramblingCode                          PRESENCE optional }|
    { ID id-HS-PDSCH-FDD-Code-Information-PSCH-ReconfRqst   CRITICALITY reject  TYPE HS-PDSCH-FDD-Code-Information             PRESENCE optional }|
    { ID id-HS-SCCH-FDD-Code-Information-PSCH-ReconfRqst    CRITICALITY reject  TYPE HS-SCCH-FDD-Code-Information              PRESENCE optional },
    ...
}

PhysicalSharedChannelReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-AGCH-And-E-RGCH-E-HICH-FDD-Scrambling-Code        CRITICALITY reject  EXTENSION DL-ScramblingCode
    PRESENCE optional }|
    { ID id-E-AGCH-FDD-Code-Information                         CRITICALITY reject  EXTENSION E-AGCH-FDD-Code-Information
    PRESENCE optional }|
    { ID id-E-RGCH-E-HICH-FDD-Code-Information                  CRITICALITY reject  EXTENSION E-RGCH-E-HICH-FDD-Code-Information
    PRESENCE optional }|
    {ID id-HSDPA-And-EDCH-CellPortion-Information-PSCH-ReconfRqst   CRITICALITY reject  EXTENSION HSDPA-And-EDCH-CellPortion-InformationList-PSCH-
ReconfRqst      PRESENCE optional }|
    {ID id-Maximum-Target-ReceivedTotalWideBandPower            CRITICALITY reject  EXTENSION Maximum-Target-ReceivedTotalWideBandPower
    PRESENCE optional }|
    {ID id-Reference-ReceivedTotalWideBandPower                 CRITICALITY ignore  EXTENSION Reference-ReceivedTotalWideBandPower
         PRESENCE optional }|
    {ID id-Target-NonServing-EDCH-To-Total-EDCH-Power-Ratio     CRITICALITY reject  EXTENSION Target-NonServing-EDCH-To-Total-EDCH-Power-Ratio
        PRESENCE optional }|
    { ID id-HSDSCH-Common-System-InformationFDD                 CRITICALITY reject  EXTENSION HSDSCH-Common-System-InformationFDD
    PRESENCE optional }|
    { ID id-Common-MACFlows-to-DeleteFDD            CRITICALITY reject  EXTENSION Common-MACFlows-to-DeleteFDD
    PRESENCE optional }|
    { ID id-HSDSCH-Paging-System-InformationFDD         CRITICALITY reject  EXTENSION HSDSCH-Paging-System-InformationFDD
    PRESENCE optional }|
    { ID id-Paging-MACFlows-to-DeleteFDD            CRITICALITY reject  EXTENSION Paging-MACFlows-to-DeleteFDD
    PRESENCE optional },
    ...
```

```
}

HSDPA-And-EDCH-CellPortion-InformationList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF HSDPA-And-EDCH-CellPortion-
InformationItem-PSCH-ReconfRqst

HSDPA-And-EDCH-CellPortion-InformationItem-PSCH-ReconfRqst::= SEQUENCE {
    cellPortionID                                                   CellPortionID,
    hS-PDSCH-HS-SCCH-ScramblingCode-PSCH-ReconfRqst                 DL-ScramblingCode                               OPTIONAL,
    hS-PDSCH-FDD-Code-Information-PSCH-ReconfRqst                   HS-PDSCH-FDD-Code-Information                   OPTIONAL,
    hS-SCCH-FDD-Code-Information-PSCH-ReconfRqst                    HS-SCCH-FDD-Code-Information                    OPTIONAL,
    hS-PDSCH-HS-SCCH-E-AGCH-E-RGCH-E-HICH-MaxPower-PSCH-ReconfRqst  MaximumTransmissionPower                        OPTIONAL,
    e-AGCH-And-E-RGCH-E-HICH-FDD-Scrambling-Code                    DL-ScramblingCode                               OPTIONAL,
    e-AGCH-FDD-Code-Information                                     E-AGCH-FDD-Code-Information                     OPTIONAL,
    e-RGCH-E-HICH-FDD-Code-Information                              E-RGCH-E-HICH-FDD-Code-Information              OPTIONAL,
    iE-Extensions                                                   ProtocolExtensionContainer { { HSDPA-And-EDCH-CellPortion-InformationItem-
PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

HSDPA-And-EDCH-CellPortion-InformationItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

-- **************************************************************
--
-- PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST TDD
--
-- **************************************************************

PhysicalSharedChannelReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs         ProtocolIE-Container        {{PhysicalSharedChannelReconfigurationRequestTDD-IEs}},
    protocolExtensions  ProtocolExtensionContainer  {{PhysicalSharedChannelReconfigurationRequestTDD-Extensions}}   OPTIONAL,
    ...
}

PhysicalSharedChannelReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                                    CRITICALITY reject  TYPE C-ID                                   PRESENCE mandatory }|
    { ID id-SFN                                     CRITICALITY reject  TYPE SFN                                    PRESENCE optional }|
    { ID id-PDSCHSets-AddList-PSCH-ReconfRqst       CRITICALITY reject  TYPE PDSCHSets-AddList-PSCH-ReconfRqst       PRESENCE optional }|
    { ID id-PDSCHSets-ModifyList-PSCH-ReconfRqst    CRITICALITY reject  TYPE PDSCHSets-ModifyList-PSCH-ReconfRqst    PRESENCE optional }|
    { ID id-PDSCHSets-DeleteList-PSCH-ReconfRqst    CRITICALITY reject  TYPE PDSCHSets-DeleteList-PSCH-ReconfRqst    PRESENCE optional }|
    { ID id-PUSCHSets-AddList-PSCH-ReconfRqst       CRITICALITY reject  TYPE PUSCHSets-AddList-PSCH-ReconfRqst       PRESENCE optional }|
    { ID id-PUSCHSets-ModifyList-PSCH-ReconfRqst    CRITICALITY reject  TYPE PUSCHSets-ModifyList-PSCH-ReconfRqst    PRESENCE optional }|
    { ID id-PUSCHSets-DeleteList-PSCH-ReconfRqst    CRITICALITY reject  TYPE PUSCHSets-DeleteList-PSCH-ReconfRqst    PRESENCE optional },
    ...
}

PhysicalSharedChannelReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HS-PDSCH-TDD-Information-PSCH-ReconfRqst            CRITICALITY reject  EXTENSION HS-PDSCH-TDD-Information-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst        CRITICALITY reject  EXTENSION Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst        CRITICALITY reject  EXTENSION Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst
    PRESENCE optional } |
```

```
    { ID id-Delete-From-HS-SCCH-Resource-Pool-PSCH-ReconfRqst   CRITICALITY reject  EXTENSION Delete-From-HS-SCCH-Resource-Pool-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-ConfigurationGenerationID                          CRITICALITY reject  EXTENSION ConfigurationGenerationID         PRESENCE optional }|
    { ID id-E-PUCH-Information-PSCH-ReconfRqst                                     CRITICALITY reject  EXTENSION E-PUCH-Information-PSCH-ReconfRqst
                                          PRESENCE optional }|
    { ID id-Add-To-E-AGCH-Resource-Pool-PSCH-ReconfRqst                            CRITICALITY reject  EXTENSION Add-To-E-AGCH-Resource-Pool-PSCH-
ReconfRqst                    PRESENCE optional } |
    { ID id-Modify-E-AGCH-Resource-Pool-PSCH-ReconfRqst                            CRITICALITY reject  EXTENSION Modify-E-AGCH-Resource-Pool-PSCH-
ReconfRqst                                    PRESENCE optional } |
    { ID id-Delete-From-E-AGCH-Resource-Pool-PSCH-ReconfRqst                       CRITICALITY reject  EXTENSION Delete-From-E-AGCH-Resource-Pool-PSCH-
ReconfRqst                                    PRESENCE optional } |
    { ID id-E-HICH-Information-PSCH-ReconfRqst                                     CRITICALITY reject  EXTENSION E-HICH-Information-PSCH-ReconfRqst
        PRESENCE optional }|
    { ID id-Maximum-Generated-ReceivedTotalWideBandPowerInOtherCells               CRITICALITY reject  EXTENSION Maximum-Generated-
ReceivedTotalWideBandPowerInOtherCells      PRESENCE optional }|-- Applicable to 3.84Mcps TDD or 7.68Mcps TDD.
    { ID id-E-PUCH-Information-768-PSCH-ReconfRqst                                 CRITICALITY reject  EXTENSION E-PUCH-Information-768-PSCH-ReconfRqst
                                          PRESENCE optional }|
    { ID id-Add-To-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst                        CRITICALITY reject  EXTENSION Add-To-E-AGCH-Resource-Pool-768-PSCH-
ReconfRqst          PRESENCE optional } |
    { ID id-Modify-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst                            CRITICALITY reject                 EXTENSION Modify-E-AGCH-
Resource-Pool-768-PSCH-ReconfRqst                                    PRESENCE optional } |
    { ID id-E-HICH-Information-768-PSCH-ReconfRqst                                 CRITICALITY reject  EXTENSION E-HICH-Information-768-PSCH-ReconfRqst
            PRESENCE optional }|
    { ID id-E-PUCH-Information-LCR-PSCH-ReconfRqst                                 CRITICALITY reject  EXTENSION E-PUCH-Information-LCR-PSCH-ReconfRqst
                                          PRESENCE optional }|
    { ID id-Add-To-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst                        CRITICALITY reject  EXTENSION Add-To-E-AGCH-Resource-Pool-LCR-PSCH-
ReconfRqst          PRESENCE optional }|
    { ID id-Modify-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst                        CRITICALITY reject  EXTENSION Modify-E-AGCH-Resource-Pool-LCR-PSCH-
ReconfRqst                                    PRESENCE optional }|
    { ID id-Add-To-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst     CRITICALITY reject  EXTENSION Add-To-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst
        PRESENCE optional }|
    { ID id-Modify-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst     CRITICALITY reject  EXTENSION Modify-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst
        PRESENCE optional }|
    { ID id-Delete-From-E-HICH-Resource-Pool-PSCH-ReconfRqst        CRITICALITY reject  EXTENSION Delete-From-E-HICH-Resource-Pool-PSCH-ReconfRqst
                                      PRESENCE optional }|
    { ID id-SYNC-UL-Partition-LCR                                                  CRITICALITY reject  EXTENSION SYNC-UL-Partition-LCR
                                 PRESENCE optional }|
     -- Applicable to 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.
    { ID id-Maximum-Target-ReceivedTotalWideBandPower-LCR                          CRITICALITY reject  EXTENSION Maximum-Target-
ReceivedTotalWideBandPower-LCR                        PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only.
    { ID id-Delete-From-HS-SCCH-Resource-PoolExt-PSCH-ReconfRqst    CRITICALITY reject      EXTENSION Delete-From-HS-SCCH-Resource-PoolExt-PSCH-
ReconfRqst      PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only, used when there are more than maxNrOfHSSCCHs HS-SCCHs in the message.
    ...
}

PDSCHSets-AddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHSets)) OF PDSCHSets-AddItem-PSCH-ReconfRqst

PDSCHSets-AddItem-PSCH-ReconfRqst    ::= SEQUENCE {
    pDSCHSet-ID                               PDSCHSet-ID,
    pDSCH-InformationList                     PDSCH-Information-AddList-PSCH-ReconfRqst   OPTIONAL,              -- Mandatory for 3.84Mcps TDD.
Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD
    iE-Extensions                             ProtocolExtensionContainer { {PDSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
```

```
    ...
}

PDSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PDSCH-AddInformation-LCR-PSCH-ReconfRqst     CRITICALITY reject      EXTENSION   PDSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst
    PRESENCE    optional}| -- Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.
    {ID id-PDSCH-AddInformation-768-PSCH-ReconfRqst     CRITICALITY reject      EXTENSION   PDSCH-AddInformation-768-AddItem-PSCH-ReconfRqst
    PRESENCE    optional}, -- Mandatory for 7.68 Mcps TDD. Not Applicable to 3.84Mcps TDD or 1.28 Mcps TDD.
    ...
}

PDSCH-Information-AddList-PSCH-ReconfRqst ::= ProtocolIE-Single-Container {{ PDSCH-Information-AddListIEs-PSCH-ReconfRqst }}
-- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD

PDSCH-Information-AddListIEs-PSCH-ReconfRqst    NBAP-PROTOCOL-IES ::= {
    {ID id-PDSCH-Information-AddListIE-PSCH-ReconfRqst  CRITICALITY reject      TYPE    PDSCH-Information-AddItem-PSCH-ReconfRqst       PRESENCE
    mandatory}
}

PDSCH-Information-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    dL-Timeslot-InformationAddList-PSCH-ReconfRqst              DL-Timeslot-InformationAddList-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { {PDSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
    ...
    }

PDSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-InformationAddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSs)) OF DL-Timeslot-InformationAddItem-PSCH-ReconfRqst

DL-Timeslot-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType,
    tFCI-Presence                           TFCI-Presence,
    dL-Code-InformationAddList-PSCH-ReconfRqst              DL-Code-InformationAddList-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
    ...
}

DL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Code-InformationAddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-InformationAddItem-PSCH-ReconfRqst

DL-Code-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID                                PDSCH-ID,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Code-InformationAddItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
```

```
}

DL-Code-InformationAddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PDSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    dL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst             DL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst,
    iE-Extensions                               ProtocolExtensionContainer { {PDSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
    }

PDSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
{ID id-Tstd-indicator           CRITICALITY reject      EXTENSION   TSTD-Indicator      PRESENCE                    optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

DL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSLCRs)) OF DL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst

DL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlotLCR                             TimeSlotLCR,
    midambleShiftLCR                        MidambleShiftLCR,
    tFCI-Presence                           TFCI-Presence,
    dL-Code-InformationAddList-LCR-PSCH-ReconfRqst             DL-Code-InformationAddList-LCR-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Code-InformationAddList-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-InformationAddItem-LCR-PSCH-ReconfRqst

DL-Code-InformationAddItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID                                PDSCH-ID,
    tdd-ChannelisationCodeLCR               TDD-ChannelisationCodeLCR,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Code-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
    ...
}

DL-Code-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PDSCH-Timeslot-Format-PSCH-ReconfRqst-LCR    CRITICALITY reject      EXTENSION TDD-DL-DPCH-TimeSlotFormat-LCR    PRESENCE optional},
    ...
}

PDSCH-AddInformation-768-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
```

```
    repetitionLength                        RepetitionLength,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    dL-Timeslot-InformationAddList-768-PSCH-ReconfRqst              DL-Timeslot-InformationAddList-768-PSCH-ReconfRqst,
    iE-Extensions                               ProtocolExtensionContainer { {PDSCH-AddInformation-768-AddItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
    }

PDSCH-AddInformation-768-AddItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-InformationAddList-768-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSs)) OF DL-Timeslot-InformationAddItem-768-PSCH-ReconfRqst

DL-Timeslot-InformationAddItem-768-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType768            MidambleShiftAndBurstType768,
    tFCI-Presence                           TFCI-Presence,
    dL-Code-InformationAddList-768-PSCH-ReconfRqst              DL-Code-InformationAddList-768-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Timeslot-InformationAddItem-768-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Timeslot-InformationAddItem-768-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Code-InformationAddList-768-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-InformationAddItem-768-PSCH-ReconfRqst

DL-Code-InformationAddItem-768-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID768                             PDSCH-ID768,
    tdd-ChannelisationCode768               TDD-ChannelisationCode768,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Code-InformationAddItem-768-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
    ...
}

DL-Code-InformationAddItem-768-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PDSCHSets-ModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHSets)) OF PDSCHSets-ModifyItem-PSCH-ReconfRqst

PDSCHSets-ModifyItem-PSCH-ReconfRqst     ::= SEQUENCE {
    pDSCHSet-ID                                 PDSCHSet-ID,
    pDSCH-InformationList                       PDSCH-Information-ModifyList-PSCH-ReconfRqst,
    iE-Extensions                               ProtocolExtensionContainer { {PDSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

PDSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PDSCH-ModifyInformation-768-PSCH-ReconfRqst  CRITICALITY reject      EXTENSION   PDSCH-ModifyInformation-768-ModifyItem-PSCH-ReconfRqst
            PRESENCE    optional}, -- For 7.68 Mcps TDD. Not Applicable to 3.84Mcps TDD or 1.28 Mcps TDD.
    ...
```

```
}

PDSCH-Information-ModifyList-PSCH-ReconfRqst ::= ProtocolIE-Single-Container {{ PDSCH-Information-ModifyListIEs-PSCH-ReconfRqst }}

PDSCH-Information-ModifyListIEs-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
    {ID id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst   CRITICALITY reject  TYPE PDSCH-Information-ModifyItem-PSCH-ReconfRqst       PRESENCE
    optional}|
    {ID id-PDSCH-ModifyInformation-LCR-PSCH-ReconfRqst      CRITICALITY reject  TYPE PDSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst
    PRESENCE    optional}
}

PDSCH-Information-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                                RepetitionPeriod                                                OPTIONAL,
    repetitionLength                                RepetitionLength                                                OPTIONAL,
    tdd-PhysicalChannelOffset                       TDD-PhysicalChannelOffset                                       OPTIONAL,
    dL-Timeslot-InformationModifyList-PSCH-ReconfRqst   DL-Timeslot-InformationModifyList-PSCH-ReconfRqst           OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { {PDSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

PDSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSs)) OF DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst

DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                                    TimeSlot,
    midambleShiftAndBurstType                   MidambleShiftAndBurstType                                       OPTIONAL,
    tFCI-Presence                               TFCI-Presence                                                   OPTIONAL,
    dL-Code-InformationModifyList-PSCH-ReconfRqst           DL-Code-InformationModifyList-PSCH-ReconfRqst       OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Code-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-InformationModifyItem-PSCH-ReconfRqst

DL-Code-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID                            PDSCH-ID,
    tdd-ChannelisationCode              TDD-ChannelisationCode,
    iE-Extensions                       ProtocolExtensionContainer { { DL-Code-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

DL-Code-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PDSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
```

```
    repetitionPeriod                                        RepetitionPeriod                                        OPTIONAL,
    repetitionLength                                        RepetitionLength                                        OPTIONAL,
    tdd-PhysicalChannelOffset                               TDD-PhysicalChannelOffset                               OPTIONAL,
    dL-Timeslot-LCR-InformationModifyList-PSCH-ReconfRqst   DL-Timeslot-LCR-InformationModifyList-PSCH-ReconfRqst   OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { {PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-LCR-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSLCRs)) OF DL-Timeslot-LCR-InformationModifyItem-PSCH-
ReconfRqst

DL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlotLCR                                         TimeSlotLCR,
    midambleShiftLCR                                    MidambleShiftLCR                                    OPTIONAL,
    tFCI-Presence                                       TFCI-Presence                                       OPTIONAL,
    dL-Code-LCR-InformationModifyList-PSCH-ReconfRqst   DL-Code-LCR-InformationModifyList-PSCH-ReconfRqst   OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { DL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Code-LCR-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst

DL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID                            PDSCH-ID,
    tdd-ChannelisationCodeLCR           TDD-ChannelisationCodeLCR,
    iE-Extensions                       ProtocolExtensionContainer { { DL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PDSCH-Timeslot-Format-PSCH-ReconfRqst-LCR    CRITICALITY reject      EXTENSION TDD-DL-DPCH-TimeSlotFormat-LCR    PRESENCE optional},
    ...
}


PDSCH-ModifyInformation-768-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                                        RepetitionPeriod                                        OPTIONAL,
    repetitionLength                                        RepetitionLength                                        OPTIONAL,
    tdd-PhysicalChannelOffset                               TDD-PhysicalChannelOffset                               OPTIONAL,
    dL-Timeslot-768-InformationModifyList-PSCH-ReconfRqst   DL-Timeslot-768-InformationModifyList-PSCH-ReconfRqst   OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { {PDSCH-ModifyInformation-768-ModifyListIE-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
```

```
    }

PDSCH-ModifyInformation-768-ModifyListIE-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-768-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSs)) OF DL-Timeslot-768-InformationModifyItem-PSCH-
ReconfRqst

DL-Timeslot-768-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                                        TimeSlot,
    midambleShiftAndBurstType768                    MidambleShiftAndBurstType768                                    OPTIONAL,
    tFCI-Presence                                   TFCI-Presence                                                   OPTIONAL,
    dL-Code-768-InformationModifyList-PSCH-ReconfRqst      DL-Code-768-InformationModifyList-PSCH-ReconfRqst                OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Timeslot-768-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Timeslot-768-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Code-768-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-768-InformationModifyItem-PSCH-ReconfRqst

DL-Code-768-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID768                             PDSCH-ID768,
    tdd-ChannelisationCode768               TDD-ChannelisationCode768,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Code-768-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Code-768-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PDSCHSets-DeleteList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHSets)) OF PDSCHSets-DeleteItem-PSCH-ReconfRqst

PDSCHSets-DeleteItem-PSCH-ReconfRqst     ::= SEQUENCE {
    pDSCHSet-ID                             PDSCHSet-ID,
    iE-Extensions                           ProtocolExtensionContainer { {PDSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

PDSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PUSCHSets-AddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHSets)) OF PUSCHSets-AddItem-PSCH-ReconfRqst

PUSCHSets-AddItem-PSCH-ReconfRqst    ::= SEQUENCE {
    pUSCHSet-ID                             PUSCHSet-ID,
    pUSCH-InformationList                   PUSCH-Information-AddList-PSCH-ReconfRqst   OPTIONAL,
```

```
    -- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD
    iE-Extensions                              ProtocolExtensionContainer { {PUSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

PUSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-PUSCH-AddInformation-LCR-PSCH-ReconfRqst    CRITICALITY reject      EXTENSION   PUSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst
    PRESENCE    optional}|  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-PUSCH-AddInformation-768-PSCH-ReconfRqst    CRITICALITY reject      EXTENSION PUSCH-AddInformation-768-AddItem-PSCH-ReconfRqst
    PRESENCE optional}, -- Mandatory for 7.68 Mcps TDD. Not Applicable to 3.84Mcps TDD or 1.28 Mcps TDD.
    ...
}

PUSCH-Information-AddList-PSCH-ReconfRqst ::=  ProtocolIE-Single-Container {{ PUSCH-Information-AddListIEs-PSCH-ReconfRqst }}

PUSCH-Information-AddListIEs-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
    { ID id-PUSCH-Information-AddListIE-PSCH-ReconfRqst CRITICALITY reject  TYPE PUSCH-Information-AddItem-PSCH-ReconfRqst     PRESENCE mandatory }
}

PUSCH-Information-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                              RepetitionPeriod,
    repetitionLength                              RepetitionLength,
    tdd-PhysicalChannelOffset                     TDD-PhysicalChannelOffset,
    uL-Timeslot-InformationAddList-PSCH-ReconfRqst  UL-Timeslot-InformationAddList-PSCH-ReconfRqst,
    iE-Extensions                                 ProtocolExtensionContainer { {PUSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

PUSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-InformationAddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationAddItem-PSCH-ReconfRqst

UL-Timeslot-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                                  TimeSlot,
    midambleShiftAndBurstType                 MidambleShiftAndBurstType,
    tFCI-Presence                             TFCI-Presence,
    uL-Code-InformationAddList-PSCH-ReconfRqst  UL-Code-InformationAddList-PSCH-ReconfRqst,
    iE-Extensions                             ProtocolExtensionContainer { { UL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationAddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-InformationAddItem-PSCH-ReconfRqst

UL-Code-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCH-ID                                PUSCH-ID,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Code-InformationAddItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
```

```
    ...
}

UL-Code-InformationAddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PUSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                                    RepetitionPeriod,
    repetitionLength                                    RepetitionLength,
    tdd-PhysicalChannelOffset                           TDD-PhysicalChannelOffset,
    uL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst  UL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst,
    iE-Extensions                                ProtocolExtensionContainer { {PUSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

PUSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfULTSLCRs)) OF UL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst

UL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlotLCR                                     TimeSlotLCR,
    midambleShiftLCR                                MidambleShiftLCR,
    tFCI-Presence                                   TFCI-Presence,
    uL-Code-InformationAddList-LCR-PSCH-ReconfRqst  UL-Code-InformationAddList-LCR-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationAddList-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-InformationAddItem-LCR-PSCH-ReconfRqst

UL-Code-InformationAddItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCH-ID                                PUSCH-ID,
    tdd-ChannelisationCodeLCR               TDD-ChannelisationCodeLCR,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Code-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
    ...
}

UL-Code-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PUSCH-Timeslot-Format-PSCH-ReconfRqst-LCR    CRITICALITY reject      EXTENSION TDD-UL-DPCH-TimeSlotFormat-LCR    PRESENCE optional},
    ...
}

PUSCH-AddInformation-768-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                                    RepetitionPeriod,
    repetitionLength                                    RepetitionLength,
```

```
    tdd-PhysicalChannelOffset                       TDD-PhysicalChannelOffset,
    uL-Timeslot-InformationAddList-768-PSCH-ReconfRqst  UL-Timeslot-InformationAddList-768-PSCH-ReconfRqst,
    iE-Extensions                               ProtocolExtensionContainer { {PUSCH-AddInformation-768-AddItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

PUSCH-AddInformation-768-AddItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-InformationAddList-768-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfULTSs)) OF UL-Timeslot-InformationAddItem-768-PSCH-ReconfRqst

UL-Timeslot-InformationAddItem-768-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                                    TimeSlot,
    midambleShiftAndBurstType768                MidambleShiftAndBurstType768,
    tFCI-Presence                               TFCI-Presence,
    uL-Code-InformationAddList-768-PSCH-ReconfRqst  UL-Code-InformationAddList-768-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Timeslot-InformationAddItem-768-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Timeslot-InformationAddItem-768-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationAddList-768-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-InformationAddItem-768-PSCH-ReconfRqst

UL-Code-InformationAddItem-768-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCH-ID                                PUSCH-ID,
    tdd-ChannelisationCode768               TDD-ChannelisationCode768,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Code-InformationAddItem-768-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
    ...
}

UL-Code-InformationAddItem-768-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PUSCHSets-ModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHSets)) OF PUSCHSets-ModifyItem-PSCH-ReconfRqst

PUSCHSets-ModifyItem-PSCH-ReconfRqst     ::= SEQUENCE {
    pUSCHSet-ID                             PUSCHSet-ID,
    pUSCH-InformationList                   PUSCH-Information-ModifyList-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { {PUSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

PUSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PUSCH-ModifyInformation-768-PSCH-ReconfRqst  CRITICALITY reject      EXTENSION   PUSCH-ModifyInformation-768-ModifyItem-PSCH-ReconfRqst
            PRESENCE    optional}, -- For 7.68 Mcps TDD. Not Applicable to 3.84Mcps TDD or 1.28 Mcps TDD.
    ...
}
```

```
PUSCH-Information-ModifyList-PSCH-ReconfRqst ::= ProtocolIE-Single-Container {{ PUSCH-Information-ModifyListIEs-PSCH-ReconfRqst }}

PUSCH-Information-ModifyListIEs-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
    {ID id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst   CRITICALITY reject      TYPE PUSCH-Information-ModifyItem-PSCH-ReconfRqst      PRESENCE
    optional}|
    {ID id-PUSCH-ModifyInformation-LCR-PSCH-ReconfRqst      CRITICALITY reject      TYPE PUSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst
        PRESENCE    optional}
}

PUSCH-Information-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                                RepetitionPeriod                                                OPTIONAL,
    repetitionLength                                RepetitionLength                                                OPTIONAL,
    tdd-PhysicalChannelOffset                       TDD-PhysicalChannelOffset           OPTIONAL,
    uL-Timeslot-InformationModifyList-PSCH-ReconfRqst   UL-Timeslot-InformationModifyList-PSCH-ReconfRqst              OPTIONAL,
    iE-Extensions                             ProtocolExtensionContainer { {PUSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

PUSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst

UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                                    TimeSlot,
    midambleShiftAndBurstType                   MidambleShiftAndBurstType                                       OPTIONAL,
    tFCI-Presence                               TFCI-Presence                                                   OPTIONAL,
    uL-Code-InformationModifyList-PSCH-ReconfRqst   UL-Code-InformationModifyList-PSCH-ReconfRqst                 OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-InformationModifyItem-PSCH-ReconfRqst

UL-Code-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCH-ID                            PUSCH-ID,
    tdd-ChannelisationCode              TDD-ChannelisationCode,
    iE-Extensions                       ProtocolExtensionContainer { { UL-Code-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

UL-Code-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PUSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                            RepetitionPeriod                                                OPTIONAL,
```

```
    repetitionLength                                    RepetitionLength                                    OPTIONAL,
    tdd-PhysicalChannelOffset                           TDD-PhysicalChannelOffset                           OPTIONAL,
    uL-Timeslot-InformationModifyList-LCR-PSCH-ReconfRqst   UL-Timeslot-LCR-InformationModifyList-PSCH-ReconfRqst   OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { {PUSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

PUSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-LCR-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfULTSLCRs)) OF UL-Timeslot-LCR-InformationModifyItem-PSCH-
ReconfRqst

UL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlotLCR                                     TimeSlotLCR,
    midambleShiftLCR                                MidambleShiftLCR                                    OPTIONAL,
    tFCI-Presence                                   TFCI-Presence                                       OPTIONAL,
    uL-Code-LCR-InformationModifyList-PSCH-ReconfRqst   UL-Code-LCR-InformationModifyList-PSCH-ReconfRqst      OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-LCR-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst

UL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCH-ID                                PUSCH-ID,
    tdd-ChannelisationCodeLCR               TDD-ChannelisationCodeLCR,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-PUSCH-Timeslot-Format-PSCH-ReconfRqst-LCR   CRITICALITY reject      EXTENSION TDD-UL-DPCH-TimeSlotFormat-LCR    PRESENCE optional},
    ...
}

PUSCH-ModifyInformation-768-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                                    RepetitionPeriod                                    OPTIONAL,
    repetitionLength                                    RepetitionLength                                    OPTIONAL,
    tdd-PhysicalChannelOffset                           TDD-PhysicalChannelOffset                           OPTIONAL,
    uL-Timeslot-InformationModifyList-768-PSCH-ReconfRqst   UL-Timeslot-768-InformationModifyList-PSCH-ReconfRqst   OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { {PUSCH-ModifyInformation-768-ModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}
```

```
PUSCH-ModifyInformation-768-ModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-768-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-768-InformationModifyItem-PSCH-
ReconfRqst

UL-Timeslot-768-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                                        TimeSlot,
    midambleShiftAndBurstType768                    MidambleShiftAndBurstType768                                    OPTIONAL,
    tFCI-Presence                                   TFCI-Presence
    OPTIONAL,
    uL-Code-768-InformationModifyList-PSCH-ReconfRqst   UL-Code-768-InformationModifyList-PSCH-ReconfRqst          OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Timeslot-768-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Timeslot-768-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-768-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-768-InformationModifyItem-PSCH-ReconfRqst

UL-Code-768-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCH-ID                                PUSCH-ID,
    tdd-ChannelisationCode768               TDD-ChannelisationCode768,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Code-768-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Code-768-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PUSCHSets-DeleteList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHSets)) OF PUSCHSets-DeleteItem-PSCH-ReconfRqst

PUSCHSets-DeleteItem-PSCH-ReconfRqst     ::= SEQUENCE {
    pUSCHSet-ID                                 PUSCHSet-ID,
    iE-Extensions                               ProtocolExtensionContainer { {PUSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

PUSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-PDSCH-TDD-Information-PSCH-ReconfRqst ::= SEQUENCE {
    dL-HS-PDSCH-Timeslot-Information-PSCH-ReconfRqst                 DL-HS-PDSCH-Timeslot-Information-PSCH-ReconfRqst       OPTIONAL,
    dL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst             DL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst   OPTIONAL,
    -- This HS-PDSCH Timeslot Information is for the first Frequency repetition, HS-PDSCH Timeslot information for Frequency repetitions 2 and on,
should be defined in MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst
    iE-Extensions                               ProtocolExtensionContainer { { HS-PDSCH-TDD-Information-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
```

```
    ...
}

HS-PDSCH-TDD-Information-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-dL-HS-PDSCH-Timeslot-Information-768-PSCH-ReconfRqst                              CRITICALITY reject    EXTENSION  DL-HS-PDSCH-
Timeslot-Information-768-PSCH-ReconfRqst           PRESENCE    optional }| -- For 7.68 Mcps TDD. Not Applicable to 3.84Mcps TDD or 1.28 Mcps TDD.
    { ID id-UARFCNforNt                                                                   CRITICALITY ignore    EXTENSION UARFCN
                                                PRESENCE optional }|
    -- This is the UARFCN for the first Frequency repetition. Mandatory for 1.28Mcps TDD when using multiple frequencies.
    { ID id-multipleFreq-dL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst                  CRITICALITY reject    EXTENSION MultipleFreq-DL-HS-
PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst      PRESENCE optional },
    -- Applicable to 1.28Mcps TDD when using multiple frequencies, This Information is for the 2nd and beyond Frequency repetition
    ...
}


DL-HS-PDSCH-Timeslot-Information-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfDLTSs)) OF DL-HS-PDSCH-Timeslot-InformationItem-PSCH-ReconfRqst

DL-HS-PDSCH-Timeslot-InformationItem-PSCH-ReconfRqst::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType,
    dl-HS-PDSCH-Codelist-PSCH-ReconfRqst    DL-HS-PDSCH-Codelist-PSCH-ReconfRqst,
    maxHSDSCH-HSSCCH-Power                  MaximumTransmissionPower                OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-HS-PDSCH-Timeslot-InformationItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

DL-HS-PDSCH-Timeslot-InformationItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-HS-PDSCH-Codelist-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfHSPDSCHs)) OF TDD-ChannelisationCode

DL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfDLTSLCRs)) OF DL-HS-PDSCH-Timeslot-InformationItem-LCR-PSCH-
ReconfRqst

DL-HS-PDSCH-Timeslot-InformationItem-LCR-PSCH-ReconfRqst::= SEQUENCE {
    timeSlot                                    TimeSlotLCR,
    midambleShiftAndBurstType                   MidambleShiftLCR,
    dl-HS-PDSCH-Codelist-LCR-PSCH-ReconfRqst    DL-HS-PDSCH-Codelist-LCR-PSCH-ReconfRqst,
    maxHSDSCH-HSSCCH-Power                      MaximumTransmissionPower                    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { DL-HS-PDSCH-Timeslot-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs} }
        OPTIONAL,
    ...
}

DL-HS-PDSCH-Timeslot-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-HS-PDSCH-Codelist-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfHSPDSCHs)) OF TDD-ChannelisationCode
```

```
DL-HS-PDSCH-Timeslot-Information-768-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfDLTSs)) OF DL-HS-PDSCH-Timeslot-InformationItem-768-PSCH-
ReconfRqst

DL-HS-PDSCH-Timeslot-InformationItem-768-PSCH-ReconfRqst::= SEQUENCE {
    timeSlot                                    TimeSlot,
    midambleShiftAndBurstType768                MidambleShiftAndBurstType768,
    dl-HS-PDSCH-Codelist-768-PSCH-ReconfRqst    DL-HS-PDSCH-Codelist-768-PSCH-ReconfRqst,
    maxHSDSCH-HSSCCH-Power                      MaximumTransmissionPower                    OPTIONAL,
    iE-Extensions                          ProtocolExtensionContainer { { DL-HS-PDSCH-Timeslot-InformationItem-768-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

DL-HS-PDSCH-Timeslot-InformationItem-768-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-HS-PDSCH-Codelist-768-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfHSPDSCHs768)) OF TDD-ChannelisationCode768

MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxFrequencyinCell-1)) OF ProtocolIE-Single-Container{{
MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCRItemIE-PSCH-ReconfRqst}}
    -- Includes the 2nd through the max number of frequency repetitions.

MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCRItemIE-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
    { ID id-MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst   CRITICALITY  reject            TYPE  MultipleFreq-DL-HS-PDSCH-
Timeslot-Information-LCRItem-PSCH-ReconfRqst PRESENCE optional }
}

MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst ::= SEQUENCE {
    dL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst    DL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst    OPTIONAL,
    uARFCN                                                  UARFCN,
    iE-Extensions                                           ProtocolExtensionContainer { { MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCRItem-
PSCH-ReconfRqst-ExtIEs} }       OPTIONAL,
    ...
}

MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst::= SEQUENCE {
    hS-SCCH-Information-PSCH-ReconfRqst     HS-SCCH-Information-PSCH-ReconfRqst         OPTIONAL,
    hS-SCCH-Information-LCR-PSCH-ReconfRqst HS-SCCH-Information-LCR-PSCH-ReconfRqst     OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-hS-SCCH-Information-768-PSCH-ReconfRqst CRITICALITY reject      EXTENSION HS-SCCH-Information-768-PSCH-ReconfRqst        PRESENCE
optional }|
    -- 7.68 Mcps TDD. Not Applicable to 3.84Mcps TDD or 1.28 Mcps TDD.
    { ID id-HS-SCCH-InformationExt-LCR-PSCH-ReconfRqst  CRITICALITY ignore  EXTENSION HS-SCCH-InformationExt-LCR-PSCH-ReconfRqst     PRESENCE
optional },
    -- Applicable to 1.28Mcps TDD only, used when there are more than maxNrOfHSSCCHs HS-SCCHs in the message.
```

```
    ...
}

HS-SCCH-Information-PSCH-ReconfRqst::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-InformationItem-PSCH-ReconfRqst

HS-SCCH-InformationItem-PSCH-ReconfRqst  ::= SEQUENCE {
    hS-SCCH-ID                          HS-SCCH-ID,
    timeSlot                            TimeSlot,
    midambleShiftAndBurstType           MidambleShiftAndBurstType,
    tdd-ChannelisationCode              TDD-ChannelisationCode,
    hS-SCCH-MaxPower                    DL-Power,
    hS-SICH-Information                 HS-SICH-Information-PSCH-ReconfRqst,
    iE-Extensions                       ProtocolExtensionContainer { { HS-SCCH-InformationItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

HS-SCCH-InformationItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SICH-Information-PSCH-ReconfRqst  ::= SEQUENCE {
    hsSICH-ID                           HS-SICH-ID,
    timeSlot                            TimeSlot,
    midambleShiftAndBurstType           MidambleShiftAndBurstType,
    tdd-ChannelisationCode              TDD-ChannelisationCode,
    iE-Extensions                       ProtocolExtensionContainer { { HS-SICH-Information-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

HS-SICH-Information-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SCCH-Information-LCR-PSCH-ReconfRqst::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-InformationItem-LCR-PSCH-ReconfRqst

HS-SCCH-InformationItem-LCR-PSCH-ReconfRqst  ::= SEQUENCE {
    hS-SCCH-ID                          HS-SCCH-ID,
    timeSlotLCR                         TimeSlotLCR,
    midambleShiftLCR                    MidambleShiftLCR,
    first-TDD-ChannelisationCode        TDD-ChannelisationCode,
    second-TDD-ChannelisationCode       TDD-ChannelisationCode,
    hS-SCCH-MaxPower                    DL-Power,
    hS-SICH-Information-LCR             HS-SICH-Information-LCR-PSCH-ReconfRqst,
    iE-Extensions                       ProtocolExtensionContainer { { HS-SCCH-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
    ...
}

HS-SCCH-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-HS-SCCH-ID                  CRITICALITY ignore     EXTENSION Extended-HS-SCCH-ID          PRESENCE optional}|
    -- used if the HS-SCCH identity has a value larger than 31
    { ID id-UARFCNforNt                         CRITICALITY ignore     EXTENSION UARFCN                       PRESENCE optional},
    -- Mandatory for 1.28Mcps TDD when using multiple frequencies
    ...
}
```

```
HS-SICH-Information-LCR-PSCH-ReconfRqst  ::= SEQUENCE {
    hsSICH-ID                           HS-SICH-ID,
    timeSlotLCR                         TimeSlotLCR,
    midambleShiftLCR                    MidambleShiftLCR,
    tdd-ChannelisationCode              TDD-ChannelisationCode,
    iE-Extensions                       ProtocolExtensionContainer { { HS-SICH-Information-LCR-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

HS-SICH-Information-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-HS-SICH-ID                     CRITICALITY ignore  EXTENSION Extended-HS-SICH-ID          PRESENCE optional},
    -- used if the HS-SICH identity has a value larger than 31
    ...
}

HS-SCCH-Information-768-PSCH-ReconfRqst::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-InformationItem-768-PSCH-ReconfRqst

HS-SCCH-InformationItem-768-PSCH-ReconfRqst  ::= SEQUENCE {
    hS-SCCH-ID                          HS-SCCH-ID,
    timeSlot                            TimeSlot,
    midambleShiftAndBurstType768        MidambleShiftAndBurstType768,
    tdd-ChannelisationCode768           TDD-ChannelisationCode768,
    hS-SCCH-MaxPower                    DL-Power,
    hS-SICH-Information-768             HS-SICH-Information-768-PSCH-ReconfRqst,
    iE-Extensions                       ProtocolExtensionContainer { { HS-SCCH-InformationItem-768-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
    ...
}

HS-SCCH-InformationItem-768-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SICH-Information-768-PSCH-ReconfRqst  ::= SEQUENCE {
    hsSICH-ID                           HS-SICH-ID,
    timeSlot                            TimeSlot,
    midambleShiftAndBurstType768        MidambleShiftAndBurstType768,
    tdd-ChannelisationCode768           TDD-ChannelisationCode768,
    iE-Extensions                       ProtocolExtensionContainer { { HS-SICH-Information-768-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

HS-SICH-Information-768-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SCCH-InformationExt-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfHSSCCHsinExt)) OF HS-SCCH-InformationItem-LCR-PSCH-ReconfRqst

Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst::= SEQUENCE {
    hS-SCCH-InformationModify-PSCH-ReconfRqst       HS-SCCH-InformationModify-PSCH-ReconfRqst                    OPTIONAL,
    hS-SCCH-InformationModify-LCR-PSCH-ReconfRqst   HS-SCCH-InformationModify-LCR-PSCH-ReconfRqst                OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
```

```
}

Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-hS-SCCH-InformationModify-768-PSCH-ReconfRqst       CRITICALITY reject  EXTENSION HS-SCCH-InformationModify-768-PSCH-ReconfRqst
    PRESENCE    optional }|
    -- 7.68 Mcps TDD. Not Applicable to 3.84Mcps TDD or 1.28 Mcps TDD.
    { ID id-HS-SCCH-InformationModifyExt-LCR-PSCH-ReconfRqst    CRITICALITY ignore  EXTENSION HS-SCCH-InformationModifyExt-LCR-PSCH-ReconfRqst
    PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only, used when there are more than maxNrOfHSSCCHs HS-SCCHs in the message.
    ...
}

HS-SCCH-InformationModifyItem-PSCH-ReconfRqst    ::= SEQUENCE {
    hS-SCCH-ID                          HS-SCCH-ID,
    timeSlot                            TimeSlot                                    OPTIONAL,
    midambleShiftAndBurstType           MidambleShiftAndBurstType                   OPTIONAL,
    tdd-ChannelisationCode              TDD-ChannelisationCode                      OPTIONAL,
    hS-SCCH-MaxPower                    DL-Power                                    OPTIONAL,
    hS-SICH-Information                 HS-SICH-InformationModify-PSCH-ReconfRqst   OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { HS-SCCH-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

HS-SCCH-InformationModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SICH-InformationModify-PSCH-ReconfRqst    ::= SEQUENCE {
    hsSICH-ID                           HS-SICH-ID,
    timeSlot                            TimeSlot                    OPTIONAL,
    midambleShiftAndBurstType           MidambleShiftAndBurstType   OPTIONAL,
    tdd-ChannelisationCode              TDD-ChannelisationCode      OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { HS-SICH-InformationModify-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

HS-SICH-InformationModify-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SCCH-InformationModify-LCR-PSCH-ReconfRqst::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-InformationModifyItem-LCR-PSCH-ReconfRqst

HS-SCCH-InformationModifyItem-LCR-PSCH-ReconfRqst    ::= SEQUENCE {
    hS-SCCH-ID                          HS-SCCH-ID,
    timeSlotLCR                         TimeSlotLCR                                 OPTIONAL,
    midambleShiftLCR                    MidambleShiftLCR                            OPTIONAL,
    first-TDD-ChannelisationCode        TDD-ChannelisationCode                      OPTIONAL,
    second-TDD-ChannelisationCode       TDD-ChannelisationCode                      OPTIONAL,
    hS-SCCH-MaxPower                    DL-Power                                    OPTIONAL,
    hS-SICH-Information-LCR             HS-SICH-InformationModify-LCR-PSCH-ReconfRqst   OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { HS-SCCH-InformationModifyItem-LCR-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}
```

```
HS-SCCH-InformationModifyItem-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-HS-SCCH-ID                         CRITICALITY ignore  EXTENSION Extended-HS-SCCH-ID          PRESENCE optional}|
    -- used if the HS-SCCH identity has a value larger than 31
    { ID id-UARFCNforNt                                 CRITICALITY ignore  EXTENSION UARFCN                      PRESENCE optional},
    -- Applicable to 1.28Mcps TDD when using multiple frequencies
    ...
}

HS-SCCH-InformationModifyExt-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfHSSCCHsinExt)) OF HS-SCCH-InformationModifyItem-LCR-PSCH-ReconfRqst

HS-SICH-InformationModify-LCR-PSCH-ReconfRqst    ::= SEQUENCE {
    hsSICH-ID                           HS-SICH-ID,
    timeSlotLCR                         TimeSlotLCR             OPTIONAL,
    midambleShiftLCR                    MidambleShiftLCR        OPTIONAL,
    tdd-ChannelisationCode              TDD-ChannelisationCode  OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { HS-SICH-InformationModify-LCR-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

HS-SICH-InformationModify-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-HS-SICH-ID                         CRITICALITY ignore  EXTENSION Extended-HS-SICH-ID          PRESENCE optional },
    -- used if the HS-SICH identity has a value larger than 31
    ...
}

HS-SCCH-InformationModify-768-PSCH-ReconfRqst::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-InformationModifyItem-768-PSCH-ReconfRqst

HS-SCCH-InformationModifyItem-768-PSCH-ReconfRqst    ::= SEQUENCE {
    hS-SCCH-ID                          HS-SCCH-ID,
    timeSlot                            TimeSlot                                        OPTIONAL,
    midambleShiftAndBurstType768        MidambleShiftAndBurstType768,
    tdd-ChannelisationCode768           TDD-ChannelisationCode768,
    hS-SCCH-MaxPower                    DL-Power                                                                        OPTIONAL,
    hS-SICH-Information-768             HS-SICH-InformationModify-768-PSCH-ReconfRqst   OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { HS-SCCH-InformationModifyItem-768-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

HS-SCCH-InformationModifyItem-768-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SICH-InformationModify-768-PSCH-ReconfRqst    ::= SEQUENCE {
    hsSICH-ID                           HS-SICH-ID,
    timeSlot                            TimeSlot                                        OPTIONAL,
    midambleShiftAndBurstType768        MidambleShiftAndBurstType768,
    tdd-ChannelisationCode768           TDD-ChannelisationCode768,
    iE-Extensions                       ProtocolExtensionContainer { { HS-SICH-InformationModify-768-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

HS-SICH-InformationModify-768-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

HS-SCCH-InformationModify-PSCH-ReconfRqst::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-InformationModifyItem-PSCH-ReconfRqst

Delete-From-HS-SCCH-Resource-Pool-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF Delete-From-HS-SCCH-Resource-PoolItem-PSCH-ReconfRqst

Delete-From-HS-SCCH-Resource-PoolItem-PSCH-ReconfRqst    ::= SEQUENCE {
    hS-SCCH-ID                  HS-SCCH-ID,
    iE-Extensions               ProtocolExtensionContainer { { Delete-From-HS-SCCH-Resource-PoolItem-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

Delete-From-HS-SCCH-Resource-PoolItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-HS-SCCH-ID                         CRITICALITY ignore  EXTENSION Extended-HS-SCCH-ID          PRESENCE optional },
    -- used if the HS-SCCH identity has a value larger than 31
    ...
}

E-PUCH-Information-PSCH-ReconfRqst ::= SEQUENCE {
    lTGI-Presence                       LTGI-Presence,
    sNPL-Reporting-Type                 SNPL-Reporting-Type,
    midambleShiftAndBurstType           MidambleShiftAndBurstType,
    e-PUCH-Timeslot-Info                E-PUCH-Timeslot-Info,
    iE-Extensions                       ProtocolExtensionContainer { { E-PUCH-Information-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
    ...
}

E-PUCH-Information-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-PUCH-Timeslot-Info ::= SEQUENCE (SIZE (1..maxNrOfE-PUCHSlots)) OF TimeSlot

Add-To-E-AGCH-Resource-Pool-PSCH-ReconfRqst::= SEQUENCE {
    e-AGCH-Information-PSCH-ReconfRqst      E-AGCH-Information-PSCH-ReconfRqst      OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Add-To-E-AGCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
    ...
}

Add-To-E-AGCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-Information-PSCH-ReconfRqst::= SEQUENCE (SIZE (1..maxNrOfEAGCHs)) OF E-AGCH-InformationItem-PSCH-ReconfRqst

E-AGCH-InformationItem-PSCH-ReconfRqst   ::= SEQUENCE {
    e-AGCH-ID                           E-AGCH-Id,
    timeSlot                            TimeSlot,
    midambleShiftAndBurstType           MidambleShiftAndBurstType,
    tdd-ChannelisationCode              TDD-ChannelisationCode,
    e-AGCH-MaxPower                     DL-Power,
    iE-Extensions                       ProtocolExtensionContainer { { E-AGCH-InformationItem-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
```

```
}

E-AGCH-InformationItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Modify-E-AGCH-Resource-Pool-PSCH-ReconfRqst::= SEQUENCE {
    e-AGCH-InformationModify-PSCH-ReconfRqst        E-AGCH-InformationModify-PSCH-ReconfRqst    OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { Modify-E-AGCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

Modify-E-AGCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-InformationModify-PSCH-ReconfRqst::= SEQUENCE (SIZE (1..maxNrOfEAGCHs)) OF E-AGCH-InformationModifyItem-PSCH-ReconfRqst

E-AGCH-InformationModifyItem-PSCH-ReconfRqst     ::= SEQUENCE {
    e-AGCH-ID                           E-AGCH-Id,
    timeSlot                            TimeSlot                    OPTIONAL,
    midambleShiftAndBurstType           MidambleShiftAndBurstType   OPTIONAL,
    tdd-ChannelisationCode              TDD-ChannelisationCode      OPTIONAL,
    e-AGCH-MaxPower                     DL-Power                    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { E-AGCH-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

E-AGCH-InformationModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Delete-From-E-AGCH-Resource-Pool-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfEAGCHs)) OF Delete-From-E-AGCH-Resource-PoolItem-PSCH-ReconfRqst

Delete-From-E-AGCH-Resource-PoolItem-PSCH-ReconfRqst     ::= SEQUENCE {
    e-AGCH-ID                       E-AGCH-Id,
    iE-Extensions                   ProtocolExtensionContainer { { Delete-From-E-AGCH-Resource-PoolItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

Delete-From-E-AGCH-Resource-PoolItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-HICH-Information-PSCH-ReconfRqst   ::= SEQUENCE {
    midambleShiftAndBurstType           MidambleShiftAndBurstType,
    tdd-ChannelisationCode              TDD-ChannelisationCode,
    e-HICH-MaxPower                     DL-Power,
    iE-Extensions                       ProtocolExtensionContainer { { E-HICH-Information-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
    ...
}
E-HICH-Information-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

E-PUCH-Information-768-PSCH-ReconfRqst ::= SEQUENCE {
    lTGI-Presence                       LTGI-Presence,
    sNPL-Reporting-Type                 SNPL-Reporting-Type,
    midambleShiftAndBurstType768        MidambleShiftAndBurstType768,
    e-PUCH-Timeslot-Info                E-PUCH-Timeslot-Info,
    iE-Extensions                       ProtocolExtensionContainer { { E-PUCH-Information-768-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

E-PUCH-Information-768-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Add-To-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst::= SEQUENCE {
    e-AGCH-Information-768-PSCH-ReconfRqst      E-AGCH-Information-768-PSCH-ReconfRqst      OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Add-To-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

Add-To-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-Information-768-PSCH-ReconfRqst::= SEQUENCE (SIZE (1..maxNrOfEAGCHs)) OF E-AGCH-InformationItem-768-PSCH-ReconfRqst

E-AGCH-InformationItem-768-PSCH-ReconfRqst   ::= SEQUENCE {
    e-AGCH-ID                           E-AGCH-Id,
    timeSlot                            TimeSlot,
    midambleShiftAndBurstType768        MidambleShiftAndBurstType768,
    tdd-ChannelisationCode768           TDD-ChannelisationCode768,
    e-AGCH-MaxPower                     DL-Power,
    iE-Extensions                       ProtocolExtensionContainer { { E-AGCH-InformationItem-768-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

E-AGCH-InformationItem-768-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Modify-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst::= SEQUENCE {
    e-AGCH-InformationModify-768-PSCH-ReconfRqst        E-AGCH-InformationModify-768-PSCH-ReconfRqst              OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { Modify-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

Modify-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-InformationModify-768-PSCH-ReconfRqst::= SEQUENCE (SIZE (1..maxNrOfEAGCHs)) OF E-AGCH-InformationModifyItem-768-PSCH-ReconfRqst
```

```
E-AGCH-InformationModifyItem-768-PSCH-ReconfRqst     ::= SEQUENCE {
    e-AGCH-ID                               E-AGCH-Id,
    timeSlot                                TimeSlot                        OPTIONAL,
    midambleShiftAndBurstType768            MidambleShiftAndBurstType768    OPTIONAL,
    tdd-ChannelisationCode768               TDD-ChannelisationCode768       OPTIONAL,
    e-AGCH-MaxPower                         DL-Power                        OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { E-AGCH-InformationModifyItem-768-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

E-AGCH-InformationModifyItem-768-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-HICH-Information-768-PSCH-ReconfRqst   ::= SEQUENCE {
    midambleShiftAndBurstType768            MidambleShiftAndBurstType768,
    tdd-ChannelisationCode768               TDD-ChannelisationCode768,
    e-HICH-MaxPower                         DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { E-HICH-Information-768-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}
E-HICH-Information-768-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-PUCH-Information-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    lTGI-Presence                           LTGI-Presence,
    sNPL-Reporting-Type                     SNPL-Reporting-Type,
    e-PUCH-Timeslot-InfoLCR                 E-PUCH-Timeslot-InfoLCR     OPTIONAL,
    -- This E-PUCH Timeslot Information is for the first Frequency repetition, E-PUCH timeslot information for Frequency repetitions 2 and on,
should be defined in MultipleFreq-E-PUCH-Timeslot-InformationList-LCR-PSCH-ReconfRqst.
    iE-Extensions                           ProtocolExtensionContainer { { E-PUCH-Information-LCR-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

E-PUCH-Information-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UARFCNforNt                                                     CRITICALITY ignore
    EXTENSION UARFCN                                                        PRESENCE optional}|
    -- This is the UARFCN for the first Frequency repetition. Mandatory for 1.28Mcps TDD when using multiple frequencies.
    { ID id-MultipleFreq-E-PUCH-Timeslot-InformationList-LCR-PSCH-ReconfRqst    CRITICALITY reject
    EXTENSION MultipleFreq-E-PUCH-Timeslot-InformationList-LCR-PSCH-ReconfRqst  PRESENCE optional },
    -- Applicable to 1.28Mcps TDD when using multiple frequencies.This E-PUCH Information is for the 2nd and beyond frequencies.
    ...
}

E-PUCH-Timeslot-InfoLCR ::= SEQUENCE (SIZE (1..maxNrOfE-PUCHSlotsLCR)) OF E-PUCH-Timeslot-Item-InfoLCR

E-PUCH-Timeslot-Item-InfoLCR ::= SEQUENCE {
    timeSlot                                TimeSlotLCR,
    midambleShiftAndBurstType               MidambleShiftLCR,
    e-PUCH-Codelist-LCR                     E-PUCH-Codelist-LCR,
    iE-Extensions                           ProtocolExtensionContainer { { E-PUCH-Timeslot-Item-InfoLCR-ExtIEs} }     OPTIONAL,
    ...
}
```

```
E-PUCH-Timeslot-Item-InfoLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-PUCH-Codelist-LCR ::= SEQUENCE (SIZE (1..maxNrOfEPUCHcodes)) OF TDD-ChannelisationCode

Add-To-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    e-AGCH-Information-LCR-PSCH-ReconfRqst  E-AGCH-Information-LCR-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { { Add-To-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

Add-To-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-Information-LCR-PSCH-ReconfRqst::= SEQUENCE (SIZE (1..maxNrOfEAGCHs)) OF E-AGCH-InformationItem-LCR-PSCH-ReconfRqst

E-AGCH-InformationItem-LCR-PSCH-ReconfRqst   ::= SEQUENCE {
    e-AGCH-ID                               E-AGCH-Id,
    timeSlotLCR                             TimeSlotLCR,
    midambleShiftLCR                        MidambleShiftLCR,
    first-TDD-ChannelisationCode            TDD-ChannelisationCode,
    second-TDD-ChannelisationCode           TDD-ChannelisationCode,
    e-AGCH-MaxPower                         DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { E-AGCH-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

E-AGCH-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UARFCNforNt                     CRITICALITY ignore      EXTENSION UARFCN        PRESENCE optional},
    -- Mandatory for 1.28Mcps TDD when using multiple frequencies
    ...
}

Modify-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst::= SEQUENCE {
    e-AGCH-InformationModify-LCR-PSCH-ReconfRqst    E-AGCH-InformationModify-LCR-PSCH-ReconfRqst,
    iE-Extensions                                   ProtocolExtensionContainer { { Modify-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

Modify-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-InformationModify-LCR-PSCH-ReconfRqst::= SEQUENCE (SIZE (1..maxNrOfEAGCHs)) OF E-AGCH-InformationModifyItem-LCR-PSCH-ReconfRqst

E-AGCH-InformationModifyItem-LCR-PSCH-ReconfRqst     ::= SEQUENCE {
    e-AGCH-ID                               E-AGCH-Id,
    timeSlotLCR                             TimeSlotLCR             OPTIONAL,
    midambleShiftLCR                        MidambleShiftLCR        OPTIONAL,
    first-TDD-ChannelisationCode            TDD-ChannelisationCode  OPTIONAL,
```

```
    second-TDD-ChannelisationCode           TDD-ChannelisationCode  OPTIONAL,
    e-AGCH-MaxPower                         DL-Power                OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { E-AGCH-InformationModifyItem-LCR-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

E-AGCH-InformationModifyItem-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UARFCNforNt                     CRITICALITY ignore      EXTENSION UARFCN        PRESENCE optional},
    -- Mandatory for 1.28Mcps TDD when using multiple frequencies
    ...
}

Add-To-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    e-HICH-Information-LCR-PSCH-ReconfRqst  E-HICH-Information-LCR-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { { Add-To-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

Add-To-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-HICH-Information-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfEHICHs)) OF E-HICH-InformationItem-LCR-PSCH-ReconfRqst

E-HICH-InformationItem-LCR-PSCH-ReconfRqst  ::= SEQUENCE {
    e-HICH-ID-TDD                           E-HICH-ID-TDD,
    e-HICH-Type                             E-HICH-Type,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    timeSlotLCR                             TimeSlotLCR,
    midambleShiftLCR                        MidambleShiftLCR,
    e-HICH-MaxPower                         DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { E-HICH-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

E-HICH-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
   { ID id-Extended-E-HICH-ID-TDD           CRITICALITY ignore EXTENSION Extended-E-HICH-ID-TDD PRESENCE optional}|
   -- Applicable to 1.28Mcps TDD only when the E-HICH identity has a value larger than 31.
    { ID id-UARFCNforNt                     CRITICALITY ignore      EXTENSION UARFCN            PRESENCE optional},
    -- Mandatory for 1.28Mcps TDD when using multiple frequencies
    ...
}

Modify-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    e-HICH-InformationModify-LCR-PSCH-ReconfRqst    E-HICH-InformationModify-LCR-PSCH-ReconfRqst,
    iE-Extensions                                   ProtocolExtensionContainer { { Modify-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

Modify-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
E-HICH-InformationModify-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfEHICHs)) OF E-HICH-InformationModifyItem-LCR-PSCH-ReconfRqst

E-HICH-InformationModifyItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    e-HICH-ID-TDD                           E-HICH-ID-TDD,
    e-HICH-Type                             E-HICH-Type             OPTIONAL,
    tdd-ChannelisationCode                  TDD-ChannelisationCode  OPTIONAL,
    timeSlotLCR                             TimeSlotLCR             OPTIONAL,
    midambleShiftLCR                        MidambleShiftLCR        OPTIONAL,
    e-HICH-MaxPower                         DL-Power                OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { E-HICH-InformationModifyItem-LCR-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

E-HICH-InformationModifyItem-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-E-HICH-ID-TDD          CRITICALITY ignore EXTENSION Extended-E-HICH-ID-TDD PRESENCE optional}|
    --Applicable to 1.28Mcps TDD only when the E-HICH identity has a value larger than 31.
    { ID id-UARFCNforNt                     CRITICALITY ignore      EXTENSION UARFCN            PRESENCE optional},
    -- Mandatory for 1.28Mcps TDD when using multiple frequencies
    ...
}

Delete-From-E-HICH-Resource-Pool-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfEHICHs)) OF Delete-From-E-HICH-Resource-PoolItem-PSCH-ReconfRqst

Delete-From-E-HICH-Resource-PoolItem-PSCH-ReconfRqst    ::= SEQUENCE {
    e-HICH-ID-TDD                                   E-HICH-ID-TDD,
    iE-Extensions                                   ProtocolExtensionContainer { { Delete-From-E-HICH-Resource-PoolItem-PSCH-ReconfRqst-ExtIEs} }
        OPTIONAL,
    ...
}

Delete-From-E-HICH-Resource-PoolItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-E-HICH-ID-TDD          CRITICALITY ignore EXTENSION Extended-E-HICH-ID-TDD PRESENCE optional},
    -- Applicable to 1.28Mcps TDD only when the E-HICH identity has a value larger than 31.
    ...
}

SYNC-UL-Partition-LCR ::= SEQUENCE {
    eRUCCH-SYNC-UL-codes-bitmap                 BIT STRING (SIZE (8)),
    iE-Extensions                               ProtocolExtensionContainer { { SYNC-UL-Partition-LCR-ExtIEs} }        OPTIONAL,
    ...
}

SYNC-UL-Partition-LCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Delete-From-HS-SCCH-Resource-PoolExt-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfHSSCCHsinExt)) OF Delete-From-HS-SCCH-Resource-PoolItem-PSCH-
ReconfRqst

MultipleFreq-E-PUCH-Timeslot-InformationList-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxFrequencyinCell-1)) OF ProtocolIE-Single-Container
{{ MultipleFreq-E-PUCH-Timeslot-InformationItemIE-LCR-PSCH-ReconfRqst}}
--Includes the 2nd through the max number of frequencies information repetitions.

MultipleFreq-E-PUCH-Timeslot-InformationItemIE-LCR-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
```

```
    { ID id-MultipleFreq-E-PUCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst    CRITICALITY ignore                TYPE MultipleFreq-E-PUCH-
Timeslot-Information-LCRItem-PSCH-ReconfRqst        PRESENCE optional }
}

MultipleFreq-E-PUCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst ::= SEQUENCE {
    e-PUCH-Timeslot-InfoLCR                E-PUCH-Timeslot-InfoLCR     OPTIONAL,
    uARFCN                                                UARFCN,
    iE-Extensions                                         ProtocolExtensionContainer { { MultipleFreq-E-PUCH-Timeslot-Information-LCRItem-PSCH-
ReconfRqst-ExtIEs} }        OPTIONAL,
    ...
}

MultipleFreq-E-PUCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE
--
-- **************************************************************

PhysicalSharedChannelReconfigurationResponse ::= SEQUENCE {
    protocolIEs         ProtocolIE-Container        {{PhysicalSharedChannelReconfigurationResponse-IEs}},
    protocolExtensions  ProtocolExtensionContainer {{PhysicalSharedChannelReconfigurationResponse-Extensions}}                    OPTIONAL,
    ...
}

PhysicalSharedChannelReconfigurationResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CriticalityDiagnostics       CRITICALITY     ignore      TYPE        CriticalityDiagnostics            PRESENCE optional },
    ...
}

PhysicalSharedChannelReconfigurationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-HICH-TimeOffset                             CRITICALITY reject  EXTENSION E-HICH-TimeOffset
    PRESENCE optional }|
    { ID id-E-HICH-TimeOffsetLCR                          CRITICALITY reject  EXTENSION E-HICH-TimeOffsetLCR
    PRESENCE optional }|
    { ID id-HSDSCH-Common-System-Information-ResponseFDD    CRITICALITY ignore  EXTENSION HSDSCH-Common-System-Information-ResponseFDD
    PRESENCE optional }|
    { ID id-HSDSCH-Paging-System-Information-ResponseFDD    CRITICALITY ignore  EXTENSION HSDSCH-Paging-System-Information-ResponseFDD
    PRESENCE optional },
    ...
}

-- **************************************************************
--
-- PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE
--
-- **************************************************************

PhysicalSharedChannelReconfigurationFailure ::= SEQUENCE {
    protocolIEs         ProtocolIE-Container        {{PhysicalSharedChannelReconfigurationFailure-IEs}},
    protocolExtensions  ProtocolExtensionContainer {{PhysicalSharedChannelReconfigurationFailure-Extensions}}                    OPTIONAL,
```

```
    ...
}

PhysicalSharedChannelReconfigurationFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CauseLevel-PSCH-ReconfFailure       CRITICALITY ignore  TYPE CauseLevel-PSCH-ReconfFailure             PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics              CRITICALITY ignore  TYPE CriticalityDiagnostics                   PRESENCE optional },
    ...
}

PhysicalSharedChannelReconfigurationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CauseLevel-PSCH-ReconfFailure ::= CHOICE {
    generalCause                            GeneralCauseList-PSCH-ReconfFailure,
    setSpecificCause                        SetSpecificCauseList-PSCH-ReconfFailureTDD,
    ...,
    extension-CauseLevel-PSCH-ReconfFailure     Extension-CauseLevel-PSCH-ReconfFailure
}


GeneralCauseList-PSCH-ReconfFailure ::= SEQUENCE {
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { { GeneralCauseItem-PSCH-ReconfFailure-ExtIEs} }          OPTIONAL,
    ...
}

GeneralCauseItem-PSCH-ReconfFailure-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SetSpecificCauseList-PSCH-ReconfFailureTDD ::= SEQUENCE {
    unsuccessful-PDSCHSetList-PSCH-ReconfFailureTDD Unsuccessful-PDSCHSetList-PSCH-ReconfFailureTDD                  OPTIONAL,
    unsuccessful-PUSCHSetList-PSCH-ReconfFailureTDD Unsuccessful-PUSCHSetList-PSCH-ReconfFailureTDD                  OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { SetSpecificCauseItem-PSCH-ReconfFailureTDD-ExtIEs} }
    OPTIONAL,
    ...
}

SetSpecificCauseItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-PDSCHSetList-PSCH-ReconfFailureTDD ::= SEQUENCE (SIZE (0.. maxNrOfPDSCHSets)) OF ProtocolIE-Single-Container {{ Unsuccessful-
PDSCHSetItemIE-PSCH-ReconfFailureTDD }}

Unsuccessful-PDSCHSetItemIE-PSCH-ReconfFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD  CRITICALITY ignore  TYPE Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDDPRESENCE
mandatory}
}

Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD ::= SEQUENCE {
    pDSCHSet-ID             PDSCHSet-ID,
    cause                   Cause,
```

```
    iE-Extensions           ProtocolExtensionContainer { {Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs} }    OPTIONAL,
    ...
}

Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-PUSCHSetList-PSCH-ReconfFailureTDD ::= SEQUENCE (SIZE (0.. maxNrOfPUSCHSets)) OF ProtocolIE-Single-Container {{ Unsuccessful-
PUSCHSetItemIE-PSCH-ReconfFailureTDD }}

Unsuccessful-PUSCHSetItemIE-PSCH-ReconfFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD  CRITICALITY ignore  TYPE Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDDPRESENCE
mandatory}
}

Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD ::= SEQUENCE {
    pUSCHSet-ID             PUSCHSet-ID,
    cause                   Cause,
    iE-Extensions           ProtocolExtensionContainer { {Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs} }    OPTIONAL,
    ...
}

Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Extension-CauseLevel-PSCH-ReconfFailure ::= ProtocolIE-Single-Container {{ Extension-CauseLevel-PSCH-ReconfFailureIE }}

Extension-CauseLevel-PSCH-ReconfFailureIE NBAP-PROTOCOL-IES ::= {
    { ID id-UARFCNSpecificCauseList CRITICALITY ignore  TYPE UARFCNSpecificCauseList-PSCH-ReconfFailureTDD PRESENCE mandatory }
}

UARFCNSpecificCauseList-PSCH-ReconfFailureTDD ::= SEQUENCE (SIZE (0.. maxFrequencyinCell)) OF ProtocolIE-Single-Container {{ Unsuccessful-
UARFCNItemIE-PSCH-ReconfFailureTDD }}

Unsuccessful-UARFCNItemIE-PSCH-ReconfFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Unsuccessful-UARFCNItem-PSCH-ReconfFailureTDD   CRITICALITY ignore  TYPE Unsuccessful-UARFCNItem-PSCH-ReconfFailureTDD PRESENCE
mandatory }
}

Unsuccessful-UARFCNItem-PSCH-ReconfFailureTDD ::= SEQUENCE {
    uARFCN                  UARFCN,
    -- Used for 1.28 Mcps TDD to indicate the carrier on which HSDPA or HSUPA resources configuration failure occurs.
    cause                   Cause               OPTIONAL,
    -- Used to indicate the cause of HSDPA configuration failure.
    iE-Extensions           ProtocolExtensionContainer { {Unsuccessful-UARFCNItem-PSCH-ReconfFailureTDD-ExtIEs} }     OPTIONAL,
    ...
}

Unsuccessful-UARFCNItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-Cause    CRITICALITY ignore      EXTENSION   Cause       PRESENCE    optional},
    -- Used to indicate the cause of E-DCH related configuration failure.
    ...
```

```
}

-- **************************************************************
--
-- RESET REQUEST
--
-- **************************************************************

ResetRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{ResetRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{ResetRequest-Extensions}}     OPTIONAL,
    ...
}

ResetRequest-IEs NBAP-PROTOCOL-IES ::= {
    {ID id-ResetIndicator       CRITICALITY ignore      TYPE    ResetIndicator      PRESENCE    mandatory},
    ...
}

ResetRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ResetIndicator ::= CHOICE {
    communicationContext            CommunicationContextList-Reset,
    communicationControlPort        CommunicationControlPortList-Reset,
    nodeB                           NULL,
    ...
}

CommunicationContextList-Reset ::= SEQUENCE {
    communicationContextInfoList-Reset      CommunicationContextInfoList-Reset,
    iE-Extensions                           ProtocolExtensionContainer  { {CommunicationContextItem-Reset-ExtIEs} }   OPTIONAL,
    ...
}

CommunicationContextItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
CommunicationContextInfoList-Reset ::= SEQUENCE (SIZE (1.. maxCommunicationContext))    OF ProtocolIE-Single-Container {{
CommunicationContextInfoItemIE-Reset }}

CommunicationContextInfoItemIE-Reset NBAP-PROTOCOL-IES ::= {
    {ID id-CommunicationContextInfoItem-Reset       CRITICALITY reject      TYPE CommunicationContextInfoItem-Reset    PRESENCE mandatory}
}

CommunicationContextInfoItem-Reset ::= SEQUENCE {
    communicationContextType-Reset          CommunicationContextType-Reset,
    iE-Extensions                           ProtocolExtensionContainer  { { CommunicationContextInfoItem-Reset-ExtIEs} }    OPTIONAL,
    ...
}

CommunicationContextInfoItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommunicationContextType-Reset ::= CHOICE {
    cRNC-CommunicationContextID             CRNC-CommunicationContextID,
    nodeB-CommunicationContextID            NodeB-CommunicationContextID,
    ...
}

CommunicationControlPortList-Reset ::= SEQUENCE {
    communicationControlPortInfoList-Reset      CommunicationControlPortInfoList-Reset,
    iE-Extensions                               ProtocolExtensionContainer  { {CommunicationControlPortItem-Reset-ExtIEs} }    OPTIONAL,
    ...
}

CommunicationControlPortItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommunicationControlPortInfoList-Reset ::= SEQUENCE (SIZE (1.. maxCCPinNodeB))  OF ProtocolIE-Single-Container
{{CommunicationControlPortInfoItemIE-Reset }}

CommunicationControlPortInfoItemIE-Reset NBAP-PROTOCOL-IES ::= {
    {ID id-CommunicationControlPortInfoItem-Reset       CRITICALITY reject      TYPE CommunicationControlPortInfoItem-Reset    PRESENCE mandatory}
}

CommunicationControlPortInfoItem-Reset ::= SEQUENCE {
```

```
    communicationControlPortID          CommunicationControlPortID,
    iE-Extensions                       ProtocolExtensionContainer { {CommunicationControlPortInfoItem-Reset-ExtIEs} } OPTIONAL,
    ...
}

CommunicationControlPortInfoItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RESET RESPONSE
--
-- **************************************************************

ResetResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{ResetResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{ResetResponse-Extensions}}            OPTIONAL,
    ...
}

ResetResponse-IEs NBAP-PROTOCOL-IES ::= {
    {ID id-CriticalityDiagnostics       CRITICALITY     ignore      TYPE    CriticalityDiagnostics                  PRESENCE optional},
    ...
}

ResetResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- INFORMATION EXCHANGE INITIATION REQUEST
--
-- **************************************************************

InformationExchangeInitiationRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{InformationExchangeInitiationRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{InformationExchangeInitiationRequest-Extensions}}           OPTIONAL,
    ...
}

InformationExchangeInitiationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-InformationExchangeID                       CRITICALITY reject      TYPE InformationExchangeID                      PRESENCE mandatory
}|
    { ID id-InformationExchangeObjectType-InfEx-Rqst    CRITICALITY reject      TYPE InformationExchangeObjectType-InfEx-Rqst   PRESENCE mandatory
}|
    { ID id-InformationType                             CRITICALITY reject      TYPE InformationType                            PRESENCE mandatory
}|
```

```
    { ID id-InformationReportCharacteristics           CRITICALITY reject      TYPE InformationReportCharacteristics          PRESENCE mandatory
},
    ...
}

InformationExchangeInitiationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

InformationExchangeObjectType-InfEx-Rqst ::= CHOICE {
    cell                            Cell-InfEx-Rqst,
    ...
}

Cell-InfEx-Rqst ::= SEQUENCE {
    c-ID                            C-ID,
    iE-Extensions                   ProtocolExtensionContainer  { { CellItem-InfEx-Rqst-ExtIEs} }                    OPTIONAL,
    ...
}

CellItem-InfEx-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- INFORMATION EXCHANGE INITIATION RESPONSE
--
-- **************************************************************

InformationExchangeInitiationResponse ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{InformationExchangeInitiationResponse-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{InformationExchangeInitiationResponse-Extensions}}          OPTIONAL,
    ...
}

InformationExchangeInitiationResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-InformationExchangeID                   CRITICALITY ignore  TYPE InformationExchangeID                    PRESENCE mandatory }|
    { ID id-InformationExchangeObjectType-InfEx-Rsp CRITICALITY ignore  TYPE InformationExchangeObjectType-InfEx-Rsp  PRESENCE optional }|
    { ID id-CriticalityDiagnostics                  CRITICALITY ignore  TYPE CriticalityDiagnostics                   PRESENCE optional },
    ...
}

InformationExchangeInitiationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

InformationExchangeObjectType-InfEx-Rsp ::= CHOICE {
    cell                        Cell-InfEx-Rsp,
    ...
 }

Cell-InfEx-Rsp ::= SEQUENCE {
    requestedDataValue              RequestedDataValue,
```

```
    iE-Extensions                   ProtocolExtensionContainer  { { CellItem-InfEx-Rsp-ExtIEs} }                    OPTIONAL,
    ...
 }

CellItem-InfEx-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- INFORMATION EXCHANGE INITIATION FAILURE
--
-- **************************************************************

InformationExchangeInitiationFailure ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{InformationExchangeInitiationFailure-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{InformationExchangeInitiationFailure-Extensions}}     OPTIONAL,
    ...
}

InformationExchangeInitiationFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-InformationExchangeID       CRITICALITY ignore          TYPE InformationExchangeID                  PRESENCE mandatory   }|
    { ID id-Cause                       CRITICALITY ignore          TYPE Cause                                  PRESENCE mandatory   }|
    { ID id-CriticalityDiagnostics      CRITICALITY ignore          TYPE CriticalityDiagnostics                 PRESENCE optional },
    ...
}

InformationExchangeInitiationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- INFORMATION REPORT
--
-- **************************************************************

InformationReport ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{InformationReport-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{InformationReport-Extensions}}        OPTIONAL,
    ...
}

InformationReport-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-InformationExchangeID                       CRITICALITY ignore  TYPE InformationExchangeID                      PRESENCE mandatory }|
    { ID id-InformationExchangeObjectType-InfEx-Rprt    CRITICALITY ignore  TYPE InformationExchangeObjectType-InfEx-Rprt   PRESENCE mandatory },
    ...
}

InformationReport-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

InformationExchangeObjectType-InfEx-Rprt ::= CHOICE {
```

```
    cell                            Cell-Inf-Rprt,
    ...
 }

Cell-Inf-Rprt ::= SEQUENCE {
    requestedDataValueInformation   RequestedDataValueInformation,
    iE-Extensions                   ProtocolExtensionContainer  {{ CellItem-Inf-Rprt-ExtIEs }}                    OPTIONAL,
    ...

 }

CellItem-Inf-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- INFORMATION EXCHANGE TERMINATION REQUEST
--
-- **************************************************************

InformationExchangeTerminationRequest ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{InformationExchangeTerminationRequest-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{InformationExchangeTerminationRequest-Extensions}}          OPTIONAL,
    ...
}

InformationExchangeTerminationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-InformationExchangeID            CRITICALITY     ignore              TYPE    InformationExchangeID         PRESENCE mandatory},
    ...
}

InformationExchangeTerminationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- INFORMATION EXCHANGE FAILURE INDICATION
--
-- **************************************************************

InformationExchangeFailureIndication ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container           {{InformationExchangeFailureIndication-IEs}},
    protocolExtensions          ProtocolExtensionContainer  {{InformationExchangeFailureIndication-Extensions}}             OPTIONAL,
    ...
}

InformationExchangeFailureIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-InformationExchangeID   CRITICALITY ignore          TYPE InformationExchangeID      PRESENCE mandatory }|
    { ID id-Cause                   CRITICALITY ignore          TYPE Cause                      PRESENCE mandatory },
    ...
}
```

```
InformationExchangeFailureIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL SYNCHRONISATION INITIATION REQUEST TDD
--
-- **************************************************************

CellSynchronisationInitiationRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellSynchronisationInitiationRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationInitiationRequestTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationInitiationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                         CRITICALITY     reject      TYPE    C-ID                                        PRESENCE mandatory   }|
    { ID    id-cellSyncBurstRepetitionPeriod            CRITICALITY     reject      TYPE    CellSyncBurstRepetitionPeriod   PRESENCE mandatory   }|
    { ID    id-timeslotInfo-CellSyncInitiationRqstTDD   CRITICALITY     reject      TYPE    TimeslotInfo-CellSyncInitiationRqstTDD   PRESENCE
    optional    }|  -- Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.
    { ID    id-CellSyncBurstTransInit-CellSyncInitiationRqstTDD     CRITICALITY     reject      TYPE                CellSyncBurstTransInit-
CellSyncInitiationRqstTDD       PRESENCE    optional    }|  -- Applicable to 3.84Mcps TDD only
    { ID    id-CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD       CRITICALITY     reject                      TYPE  CellSyncBurstMeasureInit-
CellSyncInitiationRqstTDD       PRESENCE    optional    },  -- Applicable to 3.84Mcps TDD only
    ...
}

CellSynchronisationInitiationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-SYNCDlCodeId-TransInitLCR-CellSyncInitiationRqstTDD     CRITICALITY reject  EXTENSION SYNCDlCodeId-TransInitLCR-
CellSyncInitiationRqstTDD   PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
    { ID id-SYNCDlCodeId-MeasureInitLCR-CellSyncInitiationRqstTDD   CRITICALITY reject  EXTENSION SYNCDlCodeId-MeasureInitLCR-
CellSyncInitiationRqstTDD   PRESENCE optional },    -- Applicable to 1.28Mcps TDD only
    ...
}

TimeslotInfo-CellSyncInitiationRqstTDD::= SEQUENCE (SIZE (1..15)) OF TimeSlot

CellSyncBurstTransInit-CellSyncInitiationRqstTDD::= SEQUENCE {
    cSBTransmissionID                   CSBTransmissionID,
    sfn                                 SFN,
    cellSyncBurstCode                   CellSyncBurstCode,
    cellSyncBurstCodeShift              CellSyncBurstCodeShift,
    initialDLTransPower                 DL-Power,
    iE-Extensions                       ProtocolExtensionContainer { { CellSyncBurstTransInit-CellSyncInitiationRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

CellSyncBurstTransInit-CellSyncInitiationRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD::= SEQUENCE {
    cSBMeasurementID                    CSBMeasurementID,
```

```
    cellSyncBurstCode                       CellSyncBurstCode,
    cellSyncBurstCodeShift                  CellSyncBurstCodeShift,
    synchronisationReportType               SynchronisationReportType,
    sfn                                     SFN                                         OPTIONAL,
    synchronisationReportCharacteristics    SynchronisationReportCharacteristics,
    iE-Extensions                           ProtocolExtensionContainer { { CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
 }

CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SYNCDlCodeId-TransInitLCR-CellSyncInitiationRqstTDD::= SEQUENCE {
    cSBTransmissionID                       CSBTransmissionID,
    sfn                                     SFN,
    uARFCN                                  UARFCN,
    sYNCDlCodeId                            SYNCDlCodeId,
    dwPCH-Power                             DwPCH-Power,
    iE-Extensions                           ProtocolExtensionContainer { { SYNCDlCodeId-TransInitLCR-CellSyncInitiationRqstTDD-ExtIEs } }
    OPTIONAL,
    ...
}

SYNCDlCodeId-TransInitLCR-CellSyncInitiationRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SYNCDlCodeId-MeasureInitLCR-CellSyncInitiationRqstTDD::= SEQUENCE {
    cSBMeasurementID                        CSBMeasurementID,
    sfn                                     SFN                                         OPTIONAL,
    uARFCN                                  UARFCN,
    sYNCDlCodeId                            SYNCDlCodeId,
    synchronisationReportType               SynchronisationReportType,
    synchronisationReportCharacteristics    SynchronisationReportCharacteristics,
    iE-Extensions                           ProtocolExtensionContainer { { SYNCDlCodeId-MeasureInitLCR-CellSyncInitiationRqstTDD-ExtIEs } }
    OPTIONAL,
    ...
}

SYNCDlCodeId-MeasureInitLCR-CellSyncInitiationRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **********************************************************
--
-- CELL SYNCHRONISATION INITIATION RESPONSE TDD
--
-- **********************************************************

CellSynchronisationInitiationResponseTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellSynchronisationInitiationResponseTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationInitiationResponseTDD-Extensions}}     OPTIONAL,
```

```
    ...
}

CellSynchronisationInitiationResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationInitiationResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CriticalityDiagnostics          CRITICALITY ignore      TYPE CriticalityDiagnostics                         PRESENCE optional },
    ...
}

-- **************************************************************
--
-- CELL SYNCHRONISATION INITIATION FAILURE TDD
--
-- **************************************************************

CellSynchronisationInitiationFailureTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellSynchronisationInitiationFailureTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationInitiationFailureTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationInitiationFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationInitiationFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Cause                           CRITICALITY ignore      TYPE Cause                                  PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics          CRITICALITY ignore      TYPE CriticalityDiagnostics                 PRESENCE optional },
    ...
}

-- **************************************************************
--
-- CELL SYNCHRONISATION RECONFIGURATION REQUEST TDD
--
-- **************************************************************

CellSynchronisationReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellSynchronisationReconfigurationRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationReconfigurationRequestTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                         CRITICALITY     reject      TYPE    C-ID                                    PRESENCE    mandatory
    }|
    { ID    id-TimeSlot                     CRITICALITY     reject      TYPE    TimeSlot                                PRESENCE    mandatory   }|
    -- Applicable to 3.84Mcps TDD only. For 1.28Mcps TDD, the CRNC should set this to 0 and the Node B shall ignore it.
    { ID    id-NCyclesPerSFNperiod          CRITICALITY     reject      TYPE    NCyclesPerSFNperiod                     PRESENCE    mandatory   }|
    { ID    id-NRepetitionsPerCyclePeriod   CRITICALITY     reject      TYPE    NRepetitionsPerCyclePeriod PRESENCE   mandatory   }|
```

```
    { ID    id-CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD       CRITICALITY     reject                      TYPE
    CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD      PRESENCE    optional    }|  -- Applicable to 3.84Mcps TDD only
    { ID    id-CellSyncBurstMeasReconfiguration-CellSyncReconfRqstTDD       CRITICALITY     reject                    TYPE  CellSyncBurstMeasInfo-
CellSyncReconfRqstTDD       PRESENCE    optional    },  -- Applicable to 3.84Mcps TDD only
    ...
}

CellSynchronisationReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-NSubCyclesPerCyclePeriod-CellSyncReconfRqstTDD              CRITICALITY reject  EXTENSION              NSubCyclesPerCyclePeriod
                            PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
    { ID id-SYNCDlCodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD           CRITICALITY reject  EXTENSION          SYNCDlCodeIdTransReconfInfoLCR-
CellSyncReconfRqstTDD           PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
    { ID id-SYNCDlCodeIdMeasReconfigurationLCR-CellSyncReconfRqstTDD       CRITICALITY reject  EXTENSION          SYNCDlCodeIdMeasInfoLCR-
CellSyncReconfRqstTDD       PRESENCE optional },    -- Applicable to 1.28Mcps TDD only
    ...
}

CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD ::= SEQUENCE (SIZE (1.. maxNrOfCellSyncBursts)) OF CellSyncBurstTransInfoItem-
CellSyncReconfRqstTDD

CellSyncBurstTransInfoItem-CellSyncReconfRqstTDD ::= SEQUENCE {
    cSBTransmissionID                       CSBTransmissionID,
    syncFrameNumberToTransmit               SyncFrameNumber,
    cellSyncBurstCode                       CellSyncBurstCode           OPTIONAL,
    cellSyncBurstCodeShift                  CellSyncBurstCodeShift      OPTIONAL,
    dlTransPower                            DL-Power                    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { CellSyncBurstTransInfoItem-CellSyncReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

CellSyncBurstTransInfoItem-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


CellSyncBurstMeasInfo-CellSyncReconfRqstTDD ::= SEQUENCE {
    cellSyncBurstMeasInfoList-CellSyncReconfRqstTDD     CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD,
    synchronisationReportType                           SynchronisationReportTypeIE             OPTIONAL,
    synchronisationReportCharacteristics                SynchronisationReportCharacteristicsIE  OPTIONAL,
    iE-Extensions                                       ProtocolExtensionContainer { { CellSyncBurstMeasInfo-CellSyncReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

CellSyncBurstMeasInfo-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD ::= ProtocolIE-Single-Container {{ CellSyncBurstMeasInfoListIEs-CellSyncReconfRqstTDD }}

CellSyncBurstMeasInfoListIEs-CellSyncReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD   CRITICALITY reject    TYPE CellSyncBurstMeasInfoListIE-CellSyncReconfRqstTDD
    PRESENCE mandatory }
```

```
}

SynchronisationReportTypeIE ::= ProtocolIE-Single-Container {{ SynchronisationReportTypeIEs }}

SynchronisationReportTypeIEs NBAP-PROTOCOL-IES ::= {
    { ID id-SynchronisationReportType                  CRITICALITY reject  TYPE SynchronisationReportType                              PRESENCE
    mandatory }
}

SynchronisationReportCharacteristicsIE ::= ProtocolIE-Single-Container {{ SynchronisationReportCharacteristicsIEs }}

SynchronisationReportCharacteristicsIEs NBAP-PROTOCOL-IES ::= {
    { ID id-SynchronisationReportCharacteristics       CRITICALITY reject  TYPE SynchronisationReportCharacteristics       PRESENCE mandatory }
}


CellSyncBurstMeasInfoListIE-CellSyncReconfRqstTDD ::= SEQUENCE (SIZE (1.. maxNrOfCellSyncBursts)) OF CellSyncBurstMeasInfoItem-
CellSyncReconfRqstTDD

CellSyncBurstMeasInfoItem-CellSyncReconfRqstTDD ::= SEQUENCE {
    syncFrameNrToReceive                   SyncFrameNumber,
    syncBurstInfo                          CellSyncBurstInfoList-CellSyncReconfRqstTDD,
    iE-Extensions                          ProtocolExtensionContainer { { CellSyncBurstMeasInfoItem-CellSyncReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

CellSyncBurstMeasInfoItem-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSyncBurstInfoList-CellSyncReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfReceptsPerSyncFrame)) OF CellSyncBurstInfoItem-CellSyncReconfRqstTDD

CellSyncBurstInfoItem-CellSyncReconfRqstTDD ::= SEQUENCE {
    cSBMeasurementID                       CSBMeasurementID,
    cellSyncBurstCode                      CellSyncBurstCode,
    cellSyncBurstCodeShift                 CellSyncBurstCodeShift,
    iE-Extensions                          ProtocolExtensionContainer { { CellSyncBurstInfoItem-CellSyncReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

CellSyncBurstInfoItem-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SYNCDlCodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSyncFramesLCR)) OF SYNCDlCodeIdTransReconfItemLCR-
CellSyncReconfRqstTDD

SYNCDlCodeIdTransReconfItemLCR-CellSyncReconfRqstTDD ::= SEQUENCE {
    cSBTransmissionID                      CSBTransmissionID,
    syncFrameNumberforTransmit             SyncFrameNumber,
    uARFCN                                 UARFCN,
    sYNCDlCodeId                           SYNCDlCodeId    OPTIONAL,
    dwPCH-Power                            DwPCH-Power     OPTIONAL,
```

```
    iE-Extensions                               ProtocolExtensionContainer { { SYNCDlCodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

SYNCDlCodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


SYNCDlCodeIdMeasInfoLCR-CellSyncReconfRqstTDD::= SEQUENCE {

    sYNCDlCodeIdMeasInfoList                    SYNCDlCodeIdMeasInfoList-CellSyncReconfRqstTDD,
    synchronisationReportType                   SynchronisationReportType                       OPTIONAL,
    synchronisationReportCharacteristics        SynchronisationReportCharacteristics        OPTIONAL,
    iE-Extensions       ProtocolExtensionContainer   { { SYNCDlCodeIdMeasInfoLCR-CellSyncReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

SYNCDlCodeIdMeasInfoLCR-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SYNCDlCodeIdMeasInfoList-CellSyncReconfRqstTDD::= SEQUENCE (SIZE (1.. maxNrOfSyncDLCodesLCR)) OF SYNCDlCodeIdMeasInfoItem-CellSyncReconfRqstTDD

SYNCDlCodeIdMeasInfoItem-CellSyncReconfRqstTDD ::= SEQUENCE {
    syncFrameNrToReceive                    SyncFrameNumber,
    sYNCDlCodeIdInfoLCR                     SYNCDlCodeIdInfoListLCR-CellSyncReconfRqstTDD,
    iE-Extensions                           ProtocolExtensionContainer { { SYNCDlCodeIdMeasInfoItem-CellSyncReconfRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

SYNCDlCodeIdMeasInfoItem-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SYNCDlCodeIdInfoListLCR-CellSyncReconfRqstTDD ::= SEQUENCE (SIZE (1.. maxNrOfReceptionsperSyncFrameLCR)) OF SYNCDlCodeIdInfoItemLCR-
CellSyncReconfRqstTDD

SYNCDlCodeIdInfoItemLCR-CellSyncReconfRqstTDD ::= SEQUENCE {
    cSBMeasurementID                            CSBMeasurementID,
    sYNCDlCodeId                                SYNCDlCodeId,
    uARFCN                                      UARFCN,
    propagationDelayCompensation                TimingAdjustmentValueLCR        OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { SYNCDlCodeIdInfoItemLCR-CellSyncReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

SYNCDlCodeIdInfoItemLCR-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
```

```
--
-- CELL SYNCHRONISATION RECONFIGURATION RESPONSE TDD
--
-- **************************************************************

CellSynchronisationReconfigurationResponseTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellSynchronisationReconfigurationResponseTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationReconfigurationResponseTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationReconfigurationResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationReconfigurationResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CriticalityDiagnostics                   CRITICALITY     ignore      TYPE    CriticalityDiagnostics       PRESENCE optional },
    ...
}

-- **************************************************************
--
-- CELL SYNCHRONISATION RECONFIGURATION FAILURE TDD
--
-- **************************************************************

CellSynchronisationReconfigurationFailureTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellSynchronisationReconfigurationFailureTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationReconfigurationFailureTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationReconfigurationFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationReconfigurationFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Cause                           CRITICALITY ignore      TYPE Cause                                  PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics          CRITICALITY ignore      TYPE CriticalityDiagnostics                 PRESENCE optional },
    ...
}

-- **************************************************************
--
-- CELL SYNCHRONISATION ADJUSTMENT REQUEST TDD
--
-- **************************************************************

CellSynchronisationAdjustmentRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellSynchronisationAdjustmentRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationAdjustmentRequestTDD-Extensions}}     OPTIONAL,
    ...
}
```

```
CellSynchronisationAdjustmentRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationAdjustmentRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CellAdjustmentInfo-SyncAdjustmntRqstTDD  CRITICALITY ignore  TYPE CellAdjustmentInfo-SyncAdjustmentRqstTDD PRESENCE mandatory   },
    ...
}

CellAdjustmentInfo-SyncAdjustmentRqstTDD::= SEQUENCE (SIZE (1..maxCellinNodeB)) OF ProtocolIE-Single-Container {{ CellAdjustmentInfoItemIE-
SyncAdjustmntRqstTDD }}

CellAdjustmentInfoItemIE-SyncAdjustmntRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-CellAdjustmentInfoItem-SyncAdjustmentRqstTDD    CRITICALITY ignore  TYPE CellAdjustmentInfoItem-SyncAdjustmentRqstTDD PRESENCE
mandatory }
}

CellAdjustmentInfoItem-SyncAdjustmentRqstTDD ::= SEQUENCE {
    c-ID                                C-ID,
    frameAdjustmentValue                FrameAdjustmentValue        OPTIONAL,
    timingAdjustmentValue               TimingAdjustmentValue       OPTIONAL,
    dLTransPower                        DL-Power                    OPTIONAL, -- Applicable to 3.84Mcps TDD only
    sfn                                 SFN                         OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { CellAdjustmentInfoItem-SyncAdjustmntRqstTDD-ExtIEs} }     OPTIONAL,
    ...
 }

CellAdjustmentInfoItem-SyncAdjustmntRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DwPCH-Power                 CRITICALITY ignore  EXTENSION DwPCH-Power               PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-TimingAdjustmentValueLCR    CRITICALITY ignore  EXTENSION TimingAdjustmentValueLCR  PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

-- **************************************************************
--
-- CELL SYNCHRONISATION ADJUSTMENT RESPONSE TDD
--
-- **************************************************************

CellSynchronisationAdjustmentResponseTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellSynchronisationAdjustmentResponseTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationAdjustmentResponseTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationAdjustmentResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationAdjustmentResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CriticalityDiagnostics           CRITICALITY     ignore      TYPE    CriticalityDiagnostics                  PRESENCE optional },
    ...
```

```
}

-- **************************************************************
--
-- CELL SYNCHRONISATION ADJUSTMENT FAILURE TDD
--
-- **************************************************************

CellSynchronisationAdjustmentFailureTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellSynchronisationAdjustmentFailureTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationAdjustmentFailureTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationAdjustmentFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationAdjustmentFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CauseLevel-SyncAdjustmntFailureTDD   CRITICALITY ignore      TYPE    CauseLevel-SyncAdjustmntFailureTDD   PRESENCE mandatory   }|
    { ID    id-CriticalityDiagnostics               CRITICALITY ignore      TYPE    CriticalityDiagnostics               PRESENCE optional },
    ...
}

CauseLevel-SyncAdjustmntFailureTDD ::= CHOICE {
    generalCause            GeneralCauseList-SyncAdjustmntFailureTDD,
    cellSpecificCause       CellSpecificCauseList-SyncAdjustmntFailureTDD,
    ...
}

GeneralCauseList-SyncAdjustmntFailureTDD::= SEQUENCE {
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { GeneralCauseList-SyncAdjustmntFailureTDD-ExtIEs} }    OPTIONAL,
    ...
}

GeneralCauseList-SyncAdjustmntFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSpecificCauseList-SyncAdjustmntFailureTDD ::= SEQUENCE {
    unsuccessful-cell-InformationRespList-SyncAdjustmntFailureTDD       Unsuccessful-cell-InformationRespList-SyncAdjustmntFailureTDD,
    iE-Extensions                           ProtocolExtensionContainer { { CellSpecificCauseList-SyncAdjustmntFailureTDD-ExtIEs} }
    OPTIONAL,
    ...
}

CellSpecificCauseList-SyncAdjustmntFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-cell-InformationRespList-SyncAdjustmntFailureTDD ::= SEQUENCE (SIZE (1..maxCellinNodeB))              OF ProtocolIE-Single-Container
{{ Unsuccessful-cell-InformationRespItemIE-SyncAdjustmntFailureTDD }}
```

```
Unsuccessful-cell-InformationRespItemIE-SyncAdjustmntFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD        CRITICALITY                    ignore      TYPE  Unsuccessful-
cell-InformationRespItem-SyncAdjustmntFailureTDD        PRESENCE    mandatory},
    ...
}

Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD::= SEQUENCE {
    c-ID                                    C-ID,
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD-
ExtIEs} }       OPTIONAL,
    ...
}

Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- CELL SYNCHRONISATION TERMINATION REQUEST TDD
--
-- **************************************************************

CellSynchronisationTerminationRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellSynchronisationTerminationRequestTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationTerminationRequestTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationTerminationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationTerminationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                         CRITICALITY     ignore      TYPE    C-ID                                    PRESENCE mandatory   }|
    { ID    id-CSBTransmissionID            CRITICALITY     ignore      TYPE    CSBTransmissionID                       PRESENCE optional    }|
    { ID    id-CSBMeasurementID             CRITICALITY     ignore      TYPE    CSBMeasurementID                        PRESENCE optional    },
    ...
}

-- **************************************************************
--
-- CELL SYNCHRONISATION FAILURE INDICATION TDD
--
-- **************************************************************

CellSynchronisationFailureIndicationTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellSynchronisationFailureIndicationTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationFailureIndicationTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationFailureIndicationTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

CellSynchronisationFailureIndicationTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                         CRITICALITY     ignore      TYPE    C-ID                                    PRESENCE mandatory   }|
    { ID    id-CSBTransmissionID            CRITICALITY     ignore      TYPE    CSBTransmissionID                       PRESENCE optional    }|
    { ID    id-CSBMeasurementID             CRITICALITY     ignore      TYPE    CSBMeasurementID                        PRESENCE optional    }|
    { ID    id-Cause                        CRITICALITY     ignore      TYPE    Cause                                   PRESENCE mandatory   },
    ...
}

-- **************************************************************
--
-- CELL SYNCHRONISATION REPORT TDD
--
-- **************************************************************

CellSynchronisationReportTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{CellSynchronisationReportTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{CellSynchronisationReportTDD-Extensions}}     OPTIONAL,
    ...
}

CellSynchronisationReportTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationReportTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CellSyncInfo-CellSyncReprtTDD       CRITICALITY ignore      TYPE CellSyncInfo-CellSyncReprtTDD               PRESENCE mandatory },
    ...
}

CellSyncInfo-CellSyncReprtTDD ::= SEQUENCE (SIZE (1..maxCellinNodeB))   OF CellSyncInfoItemIE-CellSyncReprtTDD

CellSyncInfoItemIE-CellSyncReprtTDD ::= SEQUENCE {
    c-ID-CellSyncReprtTDD               C-ID-IE-CellSyncReprtTDD,
    syncReportType-CellSyncReprtTDD     SyncReportTypeIE-CellSyncReprtTDD       OPTIONAL,
    ...
}

C-ID-IE-CellSyncReprtTDD ::= ProtocolIE-Single-Container {{ C-ID-IEs-CellSyncReprtTDD }}

C-ID-IEs-CellSyncReprtTDD NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                        CRITICALITY ignore          TYPE C-ID                   PRESENCE mandatory }
}

SyncReportTypeIE-CellSyncReprtTDD::= ProtocolIE-Single-Container {{ SyncReportTypeIEs-CellSyncReprtTDD }}

SyncReportTypeIEs-CellSyncReprtTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-SyncReportType-CellSyncReprtTDD      CRITICALITY ignore      TYPE SyncReportType-CellSyncReprtTDD      PRESENCE mandatory}
}


SyncReportType-CellSyncReprtTDD ::= CHOICE {
```

```
    intStdPhSyncInfo-CellSyncReprtTDD       IntStdPhCellSyncInfo-CellSyncReprtTDD,
    lateEntrantCell                         NULL,
    frequencyAcquisition                    NULL,
    ...
}

IntStdPhCellSyncInfo-CellSyncReprtTDD ::= SEQUENCE {
    cellSyncBurstMeasuredInfo                   CellSyncBurstMeasInfoList-CellSyncReprtTDD,
    iE-Extensions                               ProtocolExtensionContainer { { IntStdPhCellSyncInfoList-CellSyncReprtTDD-ExtIEs} }   OPTIONAL,
    ...
}

IntStdPhCellSyncInfoList-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-AccumulatedClockupdate-CellSyncReprtTDD     CRITICALITY ignore  EXTENSION   TimingAdjustmentValue       PRESENCE optional }|
    { ID id-SyncDLCodeIdsMeasInfoList-CellSyncReprtTDD  CRITICALITY ignore EXTENSION    SyncDLCodeIdsMeasInfoList-CellSyncReprtTDD PRESENCE optional
}, -- Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.
    ...
}

CellSyncBurstMeasInfoList-CellSyncReprtTDD ::= SEQUENCE (SIZE (0.. maxNrOfCellSyncBursts)) OF CellSyncBurstMeasInfoItem-CellSyncReprtTDD --
Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.

CellSyncBurstMeasInfoItem-CellSyncReprtTDD ::= SEQUENCE {
    sFN                                     SFN,
    cellSyncBurstInfo-CellSyncReprtTDD      SEQUENCE (SIZE (1..maxNrOfReceptsPerSyncFrame)) OF CellSyncBurstInfo-CellSyncReprtTDD,
    iE-Extensions                           ProtocolExtensionContainer { { CellSyncBurstMeasInfoItem-CellSyncReprtTDD-ExtIEs} }   OPTIONAL,
    ...
}

CellSyncBurstMeasInfoItem-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSyncBurstInfo-CellSyncReprtTDD ::= CHOICE {
    cellSyncBurstAvailable      CellSyncBurstAvailable-CellSyncReprtTDD,
    cellSyncBurstNotAvailable   NULL,
    ...
}

CellSyncBurstAvailable-CellSyncReprtTDD ::= SEQUENCE {
    cellSyncBurstTiming         CellSyncBurstTiming,
    cellSyncBurstSIR            CellSyncBurstSIR,
    iE-Extensions               ProtocolExtensionContainer { { CellSyncBurstAvailable-CellSyncReprtTDD-ExtIEs} }      OPTIONAL,
    ...
}

CellSyncBurstAvailable-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SyncDLCodeIdsMeasInfoList-CellSyncReprtTDD ::= SEQUENCE (SIZE (0..maxNrOfSyncFramesLCR)) OF SyncDLCodeIdsMeasInfoItem-CellSyncReprtTDD
-- Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.

SyncDLCodeIdsMeasInfoItem-CellSyncReprtTDD ::= SEQUENCE {
```

```
    sFN                                     SFN,
    syncDLCodeIdInfo-CellSyncReprtTDD       SyncDLCodeIdInfo-CellSyncReprtTDD,
    iE-Extensions                           ProtocolExtensionContainer { { SyncDLCodeIdsMeasInfoItem-CellSyncReprtTDD-ExtIEs } }     OPTIONAL,
    ...
}

SyncDLCodeIdsMeasInfoItem-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SyncDLCodeIdInfo-CellSyncReprtTDD ::= SEQUENCE (SIZE (1..maxNrOfReceptionsperSyncFrameLCR)) OF SyncDLCodeIdItem-CellSyncReprtTDD

SyncDLCodeIdItem-CellSyncReprtTDD ::= CHOICE {
    syncDLCodeIdAvailable               SyncDLCodeIdAvailable-CellSyncReprtTDD,
    syncDLCodeIDNotAvailable            NULL,
    ...
}

SyncDLCodeIdAvailable-CellSyncReprtTDD ::= SEQUENCE {
    syncDLCodeIdTiming          CellSyncBurstTimingLCR,
    syncDLCodeIdSIR             CellSyncBurstSIR,
    iE-Extensions               ProtocolExtensionContainer { { SyncDLCodeIdAvailable-CellSyncReprtTDD-ExtIEs } }      OPTIONAL,
    ...
}

SyncDLCodeIdAvailable-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- BEARER REARRANGEMENT INDICATION
--
-- **************************************************************

BearerRearrangementIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{BearerRearrangementIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{BearerRearrangementIndication-Extensions}}                  OPTIONAL,
    ...
}

BearerRearrangementIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID                 CRITICALITY ignore  TYPE CRNC-CommunicationContextID                PRESENCE mandatory } |
    { ID id-SignallingBearerRequestIndicator            CRITICALITY ignore  TYPE SignallingBearerRequestIndicator           PRESENCE optional } |
    { ID id-DCH-RearrangeList-Bearer-RearrangeInd       CRITICALITY ignore  TYPE DCH-RearrangeList-Bearer-RearrangeInd      PRESENCE optional } |
    { ID id-DSCH-RearrangeList-Bearer-RearrangeInd      CRITICALITY ignore  TYPE DSCH-RearrangeList-Bearer-RearrangeInd     PRESENCE optional } |
    -- TDD only.
    { ID id-USCH-RearrangeList-Bearer-RearrangeInd      CRITICALITY ignore  TYPE USCH-RearrangeList-Bearer-RearrangeInd     PRESENCE optional } |
    -- TDD only.
    { ID id-HSDSCH-RearrangeList-Bearer-RearrangeInd    CRITICALITY ignore  TYPE HSDSCH-RearrangeList-Bearer-RearrangeInd   PRESENCE optional },
    ...
}

BearerRearrangementIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
```

```
    { ID id-E-DCH-RearrangeList-Bearer-RearrangeInd     CRITICALITY ignore  EXTENSION E-DCH-RearrangeList-Bearer-RearrangeInd  PRESENCE optional },
    ...
}

DCH-RearrangeList-Bearer-RearrangeInd ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-RearrangeItem-Bearer-RearrangeInd

DCH-RearrangeItem-Bearer-RearrangeInd ::= SEQUENCE {
    dCH-ID                                      DCH-ID,
    iE-Extensions                               ProtocolExtensionContainer { { DCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs} }   OPTIONAL,
    ...
}

DCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-RearrangeList-Bearer-RearrangeInd ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-RearrangeItem-Bearer-RearrangeInd

DSCH-RearrangeItem-Bearer-RearrangeInd ::= SEQUENCE {
    dSCH-ID                                     DSCH-ID,
    iE-Extensions                               ProtocolExtensionContainer { { DSCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs} }     OPTIONAL,
    ...
}

DSCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-RearrangeList-Bearer-RearrangeInd ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-RearrangeItem-Bearer-RearrangeInd

USCH-RearrangeItem-Bearer-RearrangeInd ::= SEQUENCE {
    uSCH-ID                                     USCH-ID,
    iE-Extensions                               ProtocolExtensionContainer { { USCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs} }     OPTIONAL,
    ...
}

USCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-RearrangeList-Bearer-RearrangeInd ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-RearrangeItem-Bearer-RearrangeInd

HSDSCH-RearrangeItem-Bearer-RearrangeInd ::= SEQUENCE {
    hsDSCH-MACdFlow-ID                          HSDSCH-MACdFlow-ID,
    iE-Extensions                               ProtocolExtensionContainer { { HSDSCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs} }   OPTIONAL,
    ...
}

HSDSCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-RearrangeList-Bearer-RearrangeInd ::= SEQUENCE (SIZE (1.. maxNrOfEDCHMACdFlows)) OF E-DCH-RearrangeItem-Bearer-RearrangeInd
```

```
E-DCH-RearrangeItem-Bearer-RearrangeInd ::= SEQUENCE {
    e-DCH-MACdFlow-ID                           E-DCH-MACdFlow-ID,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs} }    OPTIONAL,
    ...
}

E-DCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK ACTIVATION COMMAND FDD
--
-- **************************************************************

RadioLinkActivationCommandFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkActivationCommandFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkActivationCommandFDD-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkActivationCommandFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-NodeB-CommunicationContextID                     CRITICALITY ignore  TYPE    NodeB-CommunicationContextID
    PRESENCE    mandatory   }|
    { ID    id-DelayedActivationList-RL-ActivationCmdFDD        CRITICALITY ignore  TYPE    DelayedActivationInformationList-RL-ActivationCmdFDD
        PRESENCE    mandatory   },
    ...
}

RadioLinkActivationCommandFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DelayedActivationInformationList-RL-ActivationCmdFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    { DelayedActivationInformation-RL-ActivationCmdFDD-IEs} }

DelayedActivationInformation-RL-ActivationCmdFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-DelayedActivationInformation-RL-ActivationCmdFDD    CRITICALITY ignore  TYPE DelayedActivationInformation-RL-ActivationCmdFDD  PRESENCE
optional    }
}

DelayedActivationInformation-RL-ActivationCmdFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    delayed-activation-update   DelayedActivationUpdate,
    iE-Extensions               ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs} } OPTIONAL,
    ...
}

DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
```

```
--
-- RADIO LINK ACTIVATION COMMAND TDD
--
-- **************************************************************

RadioLinkActivationCommandTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkActivationCommandTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkActivationCommandTDD-Extensions}}                    OPTIONAL,
    ...
}

RadioLinkActivationCommandTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-NodeB-CommunicationContextID                     CRITICALITY ignore  TYPE    NodeB-CommunicationContextID
    PRESENCE    mandatory   }|
    { ID    id-DelayedActivationList-RL-ActivationCmdTDD        CRITICALITY ignore  TYPE    DelayedActivationInformationList-RL-ActivationCmdTDD
        PRESENCE    mandatory   },
    ...
}

RadioLinkActivationCommandTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DelayedActivationInformationList-RL-ActivationCmdTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    { DelayedActivationInformation-RL-ActivationCmdTDD-IEs} }

DelayedActivationInformation-RL-ActivationCmdTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-DelayedActivationInformation-RL-ActivationCmdTDD    CRITICALITY ignore  TYPE DelayedActivationInformation-RL-ActivationCmdTDD  PRESENCE
optional    }
}

DelayedActivationInformation-RL-ActivationCmdTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    delayed-activation-update   DelayedActivationUpdate,
    iE-Extensions               ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs} } OPTIONAL,
    ...
}

DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK PARAMETER UPDATE INDICATION FDD
--
-- **************************************************************

RadioLinkParameterUpdateIndicationFDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkParameterUpdateIndicationFDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkParameterUpdateIndicationFDD-Extensions}}          OPTIONAL,
    ...
}
```

```
RadioLinkParameterUpdateIndicationFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID         CRITICALITY     ignore      TYPE    CRNC-CommunicationContextID          PRESENCE mandatory   } |
    { ID id-HSDSCH-FDD-Update-Information       CRITICALITY     ignore      TYPE    HSDSCH-FDD-Update-Information        PRESENCE optional },
    ...
}

RadioLinkParameterUpdateIndicationFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-FDD-Update-Information        CRITICALITY     ignore      EXTENSION   E-DCH-FDD-Update-Information        PRESENCE optional },
    ...
}

-- **************************************************************
--
-- RADIO LINK PARAMETER UPDATE INDICATION TDD
--
-- **************************************************************

RadioLinkParameterUpdateIndicationTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container        {{RadioLinkParameterUpdateIndicationTDD-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkParameterUpdateIndicationTDD-Extensions}}          OPTIONAL,
    ...
}

RadioLinkParameterUpdateIndicationTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID         CRITICALITY     ignore      TYPE    CRNC-CommunicationContextID          PRESENCE mandatory   } |
    { ID id-HSDSCH-TDD-Update-Information       CRITICALITY     ignore      TYPE    HSDSCH-TDD-Update-Information        PRESENCE optional },
    ...
}

RadioLinkParameterUpdateIndicationTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- MBMS NOTIFICATION UPDATE COMMAND
--
-- **************************************************************

MBMSNotificationUpdateCommand ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{ MBMSNotificationUpdateCommand-IEs}},
    protocolExtensions      ProtocolExtensionContainer  {{ MBMSNotificationUpdateCommand-Extensions}}               OPTIONAL,
    ...
}

MBMSNotificationUpdateCommand-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                                CRITICALITY ignore  TYPE C-ID                                       PRESENCE mandatory   }|
    { ID id-CommonPhysicalChannelID             CRITICALITY ignore  TYPE CommonPhysicalChannelID                    PRESENCE mandatory   }|
    { ID id-Modification-Period                 CRITICALITY ignore  TYPE Modification-Period                        PRESENCE optional    }|
    { ID id-MICH-CFN                            CRITICALITY ignore  TYPE MICH-CFN                                   PRESENCE mandatory   }|
    { ID id-NI-Information-NotifUpdateCmd       CRITICALITY ignore  TYPE NI-Information                             PRESENCE mandatory   },
    ...
}
```

```
MBMSNotificationUpdateCommand-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

END
```

9.3.4 Information Elements Definitions

```
--**************************************************************************
--
-- Information Element Definitions
--
--**************************************************************************

NBAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=
BEGIN

IMPORTS
    maxNrOfRLs,
    maxNrOfTFCs,
    maxNrOfErrors,
    maxCTFC,
    maxNrOfTFs,
    maxTTI-count,
    maxRateMatching,
    maxHS-PDSCHCodeNrComp-1,
    maxHS-SCCHCodeNrComp-1,
    maxNrOfCellSyncBursts,
    maxNrOfCombEDPDCH,
    maxNrOfEDCH-HARQ-PO-QUANTSTEPs,
    maxNrOfEDCHHARQProcesses2msEDCH,
    maxNrOfBits-MACe-PDU-non-scheduled,
    maxNrOfEDPCCH-PO-QUANTSTEPs,
    maxNrOfRefETFCI-PO-QUANTSTEPs,
    maxNrOfRefETFCIs,
    maxNrOfMeasNCell,
    maxNrOfMeasNCell-1,
    maxNrOfReceptsPerSyncFrame,
    maxNrOfSF,
    maxTGPS,
    maxNrOfUSCHs,
    maxNrOfULTSs,
    maxNrOfULTSLCRs,
    maxNrOfDPCHs,
    maxNrOfDPCHLCRs,
    maxNrOfDPCHs768,
    maxNrOfCodes,
    maxNrOfDSCHs,
    maxNrOfDLTSs,
```

```
    maxNrOfDLTSLCRs,
    maxNrOfDCHs,
    maxNrOfLevels,
    maxNoGPSItems,
    maxNoSat,
    maxNrOfCellPortionsPerCell,
    maxNrOfCellPortionsPerCell-1,
    maxNrOfHSSCCHs,
    maxNrOfHSSCCHCodes,
    maxNrOfMACdFlows,
    maxNrOfMACdFlows-1,
    maxNrOfMACdPDUIndexes,
    maxNrOfMACdPDUIndexes-1,
    maxNrOfMACdPDUSize,
    maxNrOfNIs,
    maxNrOfPriorityQueues,
    maxNrOfPriorityQueues-1,
    maxNrOfHARQProcesses,
    maxNrOfSyncDLCodesLCR,
    maxNrOfSyncFramesLCR,
    maxNrOfContextsOnUeList,
    maxNrOfPriorityClasses,
    maxNrOfSatAlmanac-maxNoSat,
    maxNrOfE-AGCHs,
    maxNrOfEDCHMACdFlows,
    maxNrOfEDCHMACdFlows-1,
    maxNrOfE-RGCHs-E-HICHs,
    maxNrofSigSeqRGHI-1,
    maxNoOfLogicalChannels,
    maxNrOfEAGCHs,
    maxNrOfRefBetas,
    maxNrOfEAGCHCodes,
    maxNrOfHS-DSCH-TBSs,
    maxNrOfHS-DSCH-TBSs-HS-SCCHless,
    maxNrOfEHICHCodes,
    maxNrOfCommonMACFlows,
    maxNrOfCommonMACFlows-1,
    maxNrOfPagingMACFlow,
    maxNrOfPagingMACFlow-1,
    maxNrOfcommonMACQueues,
    maxNrOfpagingMACQueues,
    maxNrOfHS-DSCHTBSsE-PCH,
    maxGANSSSat,
    maxNoGANSS,
    maxSgnType,
    maxHSDPAFrequency,
    maxHSDPAFrequency-1,
    maxGANSSSatAlmanac,
    maxGANSSClockMod,



    id-BroadcastCommonTransportBearerIndication,
    id-MessageStructure,
```

```
    id-ReportCharacteristicsType-OnModification,
    id-Rx-Timing-Deviation-Value-LCR,
    id-SFNSFNMeasurementValueInformation,
    id-SFNSFNMeasurementThresholdInformation,
    id-TUTRANGPSMeasurementValueInformation,
    id-TUTRANGPSMeasurementThresholdInformation,
    id-TypeOfError,
    id-transportlayeraddress,
    id-bindingID,
    id-Angle-Of-Arrival-Value-LCR,
    id-SyncDLCodeIdThreInfoLCR,
    id-neighbouringTDDCellMeasurementInformationLCR,
    id-HS-SICH-Reception-Quality,
    id-HS-SICH-Reception-Quality-Measurement-Value,
    id-Initial-DL-Power-TimeslotLCR-InformationItem,
    id-Maximum-DL-Power-TimeslotLCR-InformationItem,
    id-Minimum-DL-Power-TimeslotLCR-InformationItem,
    id-Received-total-wide-band-power-For-CellPortion,
    id-Received-total-wide-band-power-For-CellPortion-Value,
    id-Transmitted-Carrier-Power-For-CellPortion,
    id-Transmitted-Carrier-Power-For-CellPortion-Value,
    id-TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmission,
    id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortion,
    id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue,
    id-HS-DSCHRequiredPowerValueInformation,
    id-HS-DSCHProvidedBitRateValueInformation,
    id-HS-DSCHRequiredPowerValue,
    id-HS-DSCHRequiredPowerValue-For-Cell-Portion,
    id-HS-DSCHRequiredPowerValueInformation-For-CellPortion,
    id-HS-DSCHProvidedBitRateValueInformation-For-CellPortion,
    id-HSDSCH-MACdPDUSizeFormat,
    id-HS-PDSCH-Code-Change-Grant,
    id-HS-PDSCH-Code-Change-Indicator,
    id-Best-Cell-Portions-Value,
    id-Unidirectional-DCH-Indicator,
    id-SAT-Info-Almanac-ExtItem,
    id-TnlQos,
    id-UpPTSInterferenceValue,
    id-HARQ-Preamble-Mode,
    id-HARQ-Preamble-Mode-Activation-Indicator,
    id-DLTransmissionBranchLoadValue,
    id-E-DCHProvidedBitRateValueInformation,
    id-E-DCH-Non-serving-Relative-Grant-Down-CommandsValue,
    id-HSSICH-SIRTarget,
    id-PLCCH-Information-UL-TimeslotLCR-Info,
    id-neighbouringTDDCellMeasurementInformation768,
    id-Rx-Timing-Deviation-Value-768,
    id-hsSCCH-Specific-Information-ResponseTDD768,
    id-Rx-Timing-Deviation-Value-384-ext,
    id-E-DCH-PowerOffset-for-SchedulingInfo,
    id-Extended-Round-Trip-Time-Value,
    id-ExtendedPropagationDelay,
    id-HSSICH-TPC-StepSize,
    id-RTWP-CellPortion-ReportingIndicator,
    id-Received-Scheduled-EDCH-Power-Share-Value,
```

```
    id-Received-Scheduled-EDCH-Power-Share-For-CellPortion-Value,
    id-Received-Scheduled-EDCH-Power-Share,
    id-Received-Scheduled-EDCH-Power-Share-For-CellPortion,
    id-ueCapability-Info,
    id-ContinuousPacketConnectivityHS-SCCH-less-Information,
    id-ContinuousPacketConnectivityHS-SCCH-less-Information-Response,
    id-MIMO-ActivationIndicator,
    id-MIMO-Mode-Indicator,
    id-MIMO-N-M-Ratio,
    id-Additional-failed-HS-SICH,
    id-Additional-missed-HS-SICH,
    id-Additional-total-HS-SICH,
    id-Additional-HS-SICH-Reception-Quality-Measurement-Value,
    id-LCRTDD-uplink-Physical-Channel-Capability,
    id-SixteenQAM-UL-Operation-Indicator,
    id-E-TFCI-Boost-Information,
    id-E-DPDCH-PowerInterpolation,
    id-MaximumMACdPDU-SizeExtended,
    id-GANSS-Common-Data,
    id-GANSS-Information,
    id-GANSS-Generic-Data,
    id-TUTRANGANSSMeasurementThresholdInformation,
    id-TUTRANGANSSMeasurementValueInformation,
    id-Extended-RNC-ID,
    id-HARQ-MemoryPartitioningInfoExtForMIMO,
    id-Ext-Reference-E-TFCI-PO,
    id-Ext-Max-Bits-MACe-PDU-non-scheduled,
    id-TransportBearerNotSetupIndicator,
    id-TransportBearerNotRequestedIndicator,
    id-UARFCNforNt,
    id-number-Of-Supported-Carriers,
    id-multipleFreq-HSPDSCH-InformationList-ResponseTDDLCR,
    id-tSN-Length,
    id-multicarrier-number,
    id-Extended-HS-SICH-ID,
    id-Default-Serving-Grant-in-DTX-Cycle2,
    id-SixtyfourQAM-UsageAllowedIndicator,
    id-SixtyfourQAM-DL-UsageIndicator,
    id-IPMulticastDataBearerIndication,
    id-Extended-E-DCH-LCRTDD-PhysicalLayerCategory,
    id-ContinuousPacketConnectivityHS-SCCH-less-Deactivate-Indicator,
    id-Extended-E-HICH-ID-TDD



FROM NBAP-Constants

    Criticality,
    ProcedureID,
    ProtocolIE-ID,
    TransactionID,
    TriggeringMessage
FROM NBAP-CommonDataTypes
```

```
    NBAP-PROTOCOL-IES,
    ProtocolExtensionContainer{},
    ProtocolIE-Single-Container{},
    NBAP-PROTOCOL-EXTENSION
FROM NBAP-Containers;

-- ========================================
--  A
-- ========================================

AckNack-RepetitionFactor ::= INTEGER (1..4,...)
-- Step: 1

Ack-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [9] subclause 4.2.1

Acknowledged-PRACH-preambles-Value ::= INTEGER(0..240,...)
-- According to mapping in [22].

AddorDeleteIndicator ::= ENUMERATED {
    add,
    delete
}

Active-Pattern-Sequence-Information ::= SEQUENCE {
    cMConfigurationChangeCFN                                CFN,
    transmission-Gap-Pattern-Sequence-Status    Transmission-Gap-Pattern-Sequence-Status-List   OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { {Active-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
    ...
}

Active-Pattern-Sequence-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Transmission-Gap-Pattern-Sequence-Status-List ::= SEQUENCE (SIZE (0..maxTGPS)) OF
    SEQUENCE {
        tGPSID          TGPSID,
        tGPRC           TGPRC,
        tGCFN           CFN,
        iE-Extensions       ProtocolExtensionContainer { { Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs } } OPTIONAL,
        ...
}

Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
AICH-Power ::= INTEGER (-22..5)
-- Offset in dB.

AICH-TransmissionTiming ::= ENUMERATED {
    v0,
    v1
}

AllocationRetentionPriority ::= SEQUENCE {
    priorityLevel               PriorityLevel,
    pre-emptionCapability       Pre-emptionCapability,
    pre-emptionVulnerability    Pre-emptionVulnerability,
    iE-Extensions               ProtocolExtensionContainer { {AllocationRetentionPriority-ExtIEs} } OPTIONAL,
    ...
}

AllocationRetentionPriority-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AlternativeFormatReportingIndicator ::= ENUMERATED {
   alternativeFormatAllowed,...
}

Angle-Of-Arrival-Value-LCR ::= SEQUENCE {
    aOA-LCR                     AOA-LCR,
    aOA-LCR-Accuracy-Class      AOA-LCR-Accuracy-Class,
    iE-Extensions               ProtocolExtensionContainer { {Angle-Of-Arrival-Value-LCR-ExtIEs} } OPTIONAL,
...
}

Angle-Of-Arrival-Value-LCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AOA-LCR ::= INTEGER (0..719)
-- Angle Of Arrival for 1.28Mcps TDD

AOA-LCR-Accuracy-Class  ::= ENUMERATED {a,b,c,d,e,f,g,h,...}

AvailabilityStatus ::= ENUMERATED {
    empty,
    in-test,
    failed,
    power-off,
    off-line,
    off-duty,
    dependency,
    degraded,
    not-installed,
    log-full,
    ...
}
```

```
-- ========================================
--  B
-- ========================================

BCCH-Specific-HSDSCH-RNTI-Information::= SEQUENCE {
    bCCH-Specific-HSDSCH-RNTI                       HSDSCH-RNTI,
    hSSCCH-Power                                    DL-Power,
    hSPDSCH-Power                                   DL-Power,
    iE-Extensions                                   ProtocolExtensionContainer { { BCCH-Specific-HSDSCH-RNTI-Information-ExtIEs } }     OPTIONAL,
    ...
}

BCCH-Specific-HSDSCH-RNTI-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


BCCH-ModificationTime ::= INTEGER  (0..511)
-- Time = BCCH-ModificationTime * 8
-- Range 0 to 4088, step 8
-- All SFN values in which MIB may be mapped are allowed

Best-Cell-Portions-Value::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF Best-Cell-Portions-Item

Best-Cell-Portions-Item ::= SEQUENCE {
    cellPortionID               CellPortionID,
    sIRValue                    SIR-Value,
    iE-Extensions               ProtocolExtensionContainer { { Best-Cell-Portions-Item-ExtIEs} }                    OPTIONAL,
    ...
}

Best-Cell-Portions-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

BindingID ::= OCTET STRING (SIZE (1..4, ...))
-- If the Binding ID includes a UDP port, the UDP port is included in octet 1 and 2.The first octet of
-- the UDP port field is included in the first octet of the Binding ID.

BetaCD ::= INTEGER (0..15)

BlockingPriorityIndicator ::= ENUMERATED {
    high,
    normal,
    low,
    ...
}
-- High priority: Block resource immediately.
-- Normal priority: Block resource when idle or upon timer expiry.
-- Low priority: Block resource when idle.

SCTD-Indicator ::= ENUMERATED {
    active,
```

```
    inactive
}

BundlingModeIndicator ::= ENUMERATED {
    bundling,
    no-bundling
}

BroadcastCommonTransportBearerIndication ::= SEQUENCE {
    commonTransportChannelID            CommonTransportChannelID,
    cid                                 C-ID,
    iE-Extensions                       ProtocolExtensionContainer  { { BroadcastCommonTransportBearerIndication-ExtIEs} }     OPTIONAL,
    ...
}

BroadcastCommonTransportBearerIndication-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

BroadcastReference ::= BIT STRING (SIZE (24))

-- ========================================
--  C
-- ========================================

Cause ::= CHOICE {
    radioNetwork            CauseRadioNetwork,
    transport           CauseTransport,
    protocol                CauseProtocol,
    misc                    CauseMisc,
    ...
}

CauseMisc ::= ENUMERATED {
    control-processing-overload,
    hardware-failure,
    oam-intervention,
    not-enough-user-plane-processing-resources,
    unspecified,
    ...
}

CauseProtocol ::= ENUMERATED {
    transfer-syntax-error,
    abstract-syntax-error-reject,
    abstract-syntax-error-ignore-and-notify,
    message-not-compatible-with-receiver-state,
    semantic-error,
    unspecified,
    abstract-syntax-error-falsely-constructed-message,
    ...
}

CauseRadioNetwork ::= ENUMERATED {
```

```
unknown-C-ID,
cell-not-available,
power-level-not-supported,
dl-radio-resources-not-available,
ul-radio-resources-not-available,
rl-already-ActivatedOrAllocated,
nodeB-Resources-unavailable,
measurement-not-supported-for-the-object,
combining-resources-not-available,
requested-configuration-not-supported,
synchronisation-failure,
priority-transport-channel-established,
sIB-Origination-in-Node-B-not-Supported,
requested-tx-diversity-mode-not-supported,
unspecified,
bCCH-scheduling-error,
measurement-temporarily-not-available,
invalid-CM-settings,
reconfiguration-CFN-not-elapsed,
number-of-DL-codes-not-supported,
s-cpich-not-supported,
combining-not-supported,
ul-sf-not-supported,
dl-SF-not-supported,
common-transport-channel-type-not-supported,
dedicated-transport-channel-type-not-supported,
downlink-shared-channel-type-not-supported,
uplink-shared-channel-type-not-supported,
cm-not-supported,
tx-diversity-no-longer-supported,
unknown-Local-Cell-ID,
...,
number-of-UL-codes-not-supported,
information-temporarily-not-available,
information-provision-not-supported-for-the-object,
cell-synchronisation-not-supported,
cell-synchronisation-adjustment-not-supported,
dpc-mode-change-not-supported,
iPDL-already-activated,
iPDL-not-supported,
iPDL-parameters-not-available,
frequency-acquisition-not-supported,
power-balancing-status-not-compatible,
requested-typeofbearer-re-arrangement-not-supported,
signalling-Bearer-Re-arrangement-not-supported,
bearer-Re-arrangement-needed,
delayed-activation-not-supported,
rl-timing-adjustment-not-supported,
mich-not-supported,
f-DPCH-not-supported,
modification-period-not-available,
pLCCH-not-supported,
continuous-packet-connectivity-DTX-DRX-operation-not-available,
continuous-packet-connectivity-UE-DTX-Cycle-not-available,
```

```
    mIMO-not-available
}

CauseTransport ::= ENUMERATED {
    transport-resource-unavailable,
    unspecified,
    ...
}


CCTrCH-ID ::= INTEGER (0..15)

CellParameterID ::= INTEGER (0..127,...)

CellPortionID   ::= INTEGER (0..maxNrOfCellPortionsPerCell-1,...)

CellSyncBurstCode ::= INTEGER(0..7, ...)

CellSyncBurstCodeShift ::= INTEGER(0..7)

CellSyncBurstRepetitionPeriod ::= INTEGER (0..4095)

CellSyncBurstSIR ::= INTEGER (0..31)

CellSyncBurstTiming ::= CHOICE {
    initialPhase            INTEGER (0..1048575,...),
    steadyStatePhase        INTEGER (0..255,...)
}

CellSyncBurstTimingLCR ::= CHOICE {
    initialPhase            INTEGER (0..524287,...),
    steadyStatePhase        INTEGER (0..127,...)
}

CellSyncBurstTimingThreshold ::= INTEGER(0..254)

CFN ::= INTEGER (0..255)

ChipOffset ::= INTEGER (0..38399)
-- Unit Chip

C-ID ::= INTEGER (0..65535)

Closedlooptimingadjustmentmode  ::= ENUMERATED {
    adj-1-slot,
    adj-2-slot,
    ...
}

CodeRate ::= INTEGER (0..63)

CodeRate-short ::= INTEGER (0..10)
```

```
CommonChannelsCapacityConsumptionLaw ::= SEQUENCE (SIZE(1..maxNrOfSF)) OF
    SEQUENCE {
        dl-Cost     INTEGER (0..65535),
        ul-Cost     INTEGER (0..65535),
        iE-Extensions       ProtocolExtensionContainer { { CommonChannelsCapacityConsumptionLaw-ExtIEs } }            OPTIONAL,
        ...
}

CommonChannelsCapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Common-MACFlows-to-DeleteFDD ::= SEQUENCE (SIZE (1.. maxNrOfCommonMACFlows)) OF Common-MACFlows-to-DeleteFDD-Item

Common-MACFlows-to-DeleteFDD-Item ::= SEQUENCE {
    common-MACFlow-ID                           Common-MACFlow-ID,
    iE-Extensions                               ProtocolExtensionContainer { { Common-MACFlows-to-DeleteFDD-Item-ExtIEs} }
    OPTIONAL,
    ...
}

Common-MACFlows-to-DeleteFDD-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Common-MACFlow-ID ::= INTEGER (0..maxNrOfCommonMACFlows-1)

CommonMACFlow-Specific-InfoList ::= SEQUENCE (SIZE (1.. maxNrOfCommonMACFlows)) OF CommonMACFlow-Specific-InfoItem

CommonMACFlow-Specific-InfoItem ::= SEQUENCE {
    common-MACFlow-Id                           Common-MACFlow-ID,
    bindingID                                   BindingID                                   OPTIONAL,
    transportLayerAddress                       TransportLayerAddress                       OPTIONAL,
    tnl-qos                                     TnlQos                                      OPTIONAL,
    common-MACFlow-PriorityQueue-Information    Common-MACFlow-PriorityQueue-Information    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { CommonMACFlow-Specific-InfoItem-ExtIEs } }     OPTIONAL,
    ...
}

CommonMACFlow-Specific-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


CommonMACFlow-Specific-InfoList-Response ::= SEQUENCE (SIZE (1..maxNrOfCommonMACFlows)) OF CommonMACFlow-Specific-InfoItem-Response

CommonMACFlow-Specific-InfoItem-Response ::= SEQUENCE {
    commonMACFlow-ID                            Common-MACFlow-ID,
    bindingID                                   BindingID                                   OPTIONAL,
    transportLayerAddress                       TransportLayerAddress                       OPTIONAL,
    hSDSCH-Initial-Capacity-Allocation          HSDSCH-Initial-Capacity-Allocation          OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { CommonMACFlow-Specific-InfoItem-Response-ExtIEs} }
    OPTIONAL,
    ...
```

```
}

CommonMACFlow-Specific-InfoItem-Response-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Common-MACFlow-PriorityQueue-Information  ::= SEQUENCE (SIZE (1..maxNrOfcommonMACQueues)) OF Common-MACFlow-PriorityQueue-Item

Common-MACFlow-PriorityQueue-Item  ::= SEQUENCE {
    priority-Queue-Information-for-Enhanced-FACH        Priority-Queue-Information-for-Enhanced-FACH-PCH,
        iE-Extensions                                   ProtocolExtensionContainer { { Common-MACFlow-PriorityQueue-Item-ExtIEs } }     OPTIONAL,
    ...
}

Common-MACFlow-PriorityQueue-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}



CommonMeasurementAccuracy ::= CHOICE {
    tUTRANGPSMeasurementAccuracyClass       TUTRANGPSAccuracyClass,
    ...,
    tUTRANGANSSMeasurementAccuracyClass     TUTRANGANSSAccuracyClass
}

CommonMeasurementType ::= ENUMERATED  {
    received-total-wide-band-power,
    transmitted-carrier-power,
    acknowledged-prach-preambles,
    ul-timeslot-iscp,
    notUsed-1-acknowledged-PCPCH-access-preambles,
    notUsed-2-detected-PCPCH-access-preambles,
    ...,
    uTRAN-GPS-Timing-of-Cell-Frames-for-UE-Positioning,
    sFN-SFN-Observed-Time-Difference,
    transmittedCarrierPowerOfAllCodesNotUsedForHSTransmission,
    hS-DSCH-Required-Power,
    hS-DSCH-Provided-Bit-Rate,
    received-total-wide-band-power-for-cellPortion,
    transmitted-carrier-power-for-cellPortion,
    transmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmission-for-cellPortion,
    upPTS-Interference,
    dLTransmissionBranchLoad,
    hS-DSCH-Required-Power-for-cell-portion,
    hS-DSCH-Provided-Bit-Rate-for-cell-portion,
    e-DCH-Provided-Bit-Rate,
    e-DCH-Non-serving-Relative-Grant-Down-Commands,
    received-Scheduled-EDCH-Power-Share,
    received-Scheduled-EDCH-Power-Share-for-cellPortion,
    uTRAN-GANSS-timing-of-cell-frames-for-UE-Positioning
}
```

```
CommonMeasurementValue ::= CHOICE {
    transmitted-carrier-power                           Transmitted-Carrier-Power-Value,
    received-total-wide-band-power                      Received-total-wide-band-power-Value,
    acknowledged-prach-preambles                        Acknowledged-PRACH-preambles-Value,
    uL-TimeslotISCP                                     UL-TimeslotISCP-Value,
    notUsed-1-acknowledged-PCPCH-access-preambles       NULL,
    notUsed-2-detected-PCPCH-access-preambles           NULL,
    ...,
    extension-CommonMeasurementValue        Extension-CommonMeasurementValue
}

Extension-CommonMeasurementValue    ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementValueIE }}

Extension-CommonMeasurementValueIE NBAP-PROTOCOL-IES ::= {
    { ID id-TUTRANGPSMeasurementValueInformation            CRITICALITY ignore  TYPE TUTRANGPSMeasurementValueInformation   PRESENCE mandatory }|
    { ID id-SFNSFNMeasurementValueInformation               CRITICALITY ignore  TYPE SFNSFNMeasurementValueInformation      PRESENCE mandatory }|
    { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmission   CRITICALITY ignore  TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue      PRESENCE mandatory }|
    { ID id-HS-DSCHRequiredPowerValueInformation            CRITICALITY ignore  TYPE HS-DSCHRequiredPower                   PRESENCE mandatory }|
    { ID id-HS-DSCHProvidedBitRateValueInformation          CRITICALITY ignore  TYPE HS-DSCHProvidedBitRate                 PRESENCE mandatory }|
    { ID id-Transmitted-Carrier-Power-For-CellPortion-Value CRITICALITY ignore  TYPE Transmitted-Carrier-Power-For-CellPortion-Value PRESENCE
mandatory }|
    { ID id-Received-total-wide-band-power-For-CellPortion-Value    CRITICALITY ignore  TYPE Received-total-wide-band-power-For-CellPortion-Value
    PRESENCE mandatory }|
    { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue CRITICALITY ignore   TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue    PRESENCE mandatory }|
    { ID id-UpPTSInterferenceValue                          CRITICALITY ignore  TYPE UpPTSInterferenceValue                          PRESENCE
mandatory }|
    { ID id-DLTransmissionBranchLoadValue                   CRITICALITY ignore  TYPE DLTransmissionBranchLoadValue
    PRESENCE mandatory }|
    { ID id-HS-DSCHRequiredPowerValueInformation-For-CellPortion    CRITICALITY ignore  TYPE HS-DSCHRequiredPowerValueInformation-For-CellPortion
    PRESENCE mandatory }|
    { ID id-HS-DSCHProvidedBitRateValueInformation-For-CellPortion  CRITICALITY ignore  TYPE HS-DSCHProvidedBitRateValueInformation-For-CellPortion
    PRESENCE mandatory }|
    { ID id-E-DCHProvidedBitRateValueInformation            CRITICALITY ignore  TYPE E-DCHProvidedBitRate
    PRESENCE mandatory }|
    { ID id-E-DCH-Non-serving-Relative-Grant-Down-CommandsValue     CRITICALITY ignore  TYPE E-DCH-Non-serving-Relative-Grant-Down-Commands
    PRESENCE mandatory }|
    { ID id-Received-Scheduled-EDCH-Power-Share-Value   CRITICALITY ignore  TYPE Received-Scheduled-EDCH-Power-Share-Value  PRESENCE mandatory }|
    { ID id-Received-Scheduled-EDCH-Power-Share-For-CellPortion-Value   CRITICALITY ignore  TYPE Received-Scheduled-EDCH-Power-Share-For-
CellPortion-Value   PRESENCE mandatory }|
    { ID id-TUTRANGANSSMeasurementValueInformation      CRITICALITY ignore  TYPE TUTRANGANSSMeasurementValueInformation  PRESENCE mandatory }
}

CommonMeasurementValueInformation ::= CHOICE {
    measurementAvailable        CommonMeasurementAvailable,
    measurementnotAvailable     CommonMeasurementnotAvailable
}

CommonMeasurementAvailable::= SEQUENCE {
    commonmeasurementValue      CommonMeasurementValue,
    ie-Extensions                   ProtocolExtensionContainer { { CommonMeasurementAvailableItem-ExtIEs} }          OPTIONAL,
```

```
    ...
}


CommonMeasurementAvailableItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
CommonMeasurementnotAvailable ::= NULL

CommonPhysicalChannelID ::= INTEGER (0..255)

CommonPhysicalChannelID768 ::= INTEGER (0..511)

Common-PhysicalChannel-Status-Information ::= SEQUENCE {
    commonPhysicalChannelID             CommonPhysicalChannelID,
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    iE-Extensions                       ProtocolExtensionContainer  { { Common-PhysicalChannel-Status-Information-ExtIEs} }    OPTIONAL,
    ...
}

Common-PhysicalChannel-Status-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Common-PhysicalChannel-Status-Information768 ::= SEQUENCE {
    commonPhysicalChannelID768          CommonPhysicalChannelID768,
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    iE-Extensions                       ProtocolExtensionContainer  { { Common-PhysicalChannel-Status-Information768-ExtIEs} }    OPTIONAL,
    ...
}

Common-PhysicalChannel-Status-Information768-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


CommonTransportChannelID ::= INTEGER (0..255)

CommonTransportChannel-InformationResponse ::= SEQUENCE {
    commonTransportChannelID            CommonTransportChannelID,
    bindingID                           BindingID               OPTIONAL,
    transportLayerAddress               TransportLayerAddress   OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer  { { CommonTransportChannel-InformationResponse-ExtIEs} }   OPTIONAL,
    ...
}

CommonTransportChannel-InformationResponse-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-BroadcastCommonTransportBearerIndication CRITICALITY ignore EXTENSION BroadcastCommonTransportBearerIndication   PRESENCE optional
}|
    { ID    id-IPMulticastDataBearerIndication          CRITICALITY ignore EXTENSION IPMulticastDataBearerIndication            PRESENCE
optional },
```

```
    ...
}

Common-TransportChannel-Status-Information ::= SEQUENCE {
    commonTransportChannelID            CommonTransportChannelID,
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    iE-Extensions                       ProtocolExtensionContainer  { { Common-TransportChannel-Status-Information-ExtIEs} }   OPTIONAL,
    ...
}

Common-TransportChannel-Status-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommunicationControlPortID ::= INTEGER (0..65535)

Compressed-Mode-Deactivation-Flag:: ENUMERATED {
    deactivate,
    maintain-Active
}

ConfigurationGenerationID ::= INTEGER (0..255)
-- Value '0' means "No configuration"

ConstantValue ::= INTEGER (-10..10,...)
-- -10 dB - +10 dB
-- unit dB
-- step 1 dB

ContinuousPacketConnectivityDTX-DRX-Capability ::= ENUMERATED {
    continuous-Packet-Connectivity-DTX-DRX-capable,
    continuous-Packet-Connectivity-DTX-DRX-non-capable
}

ContinuousPacketConnectivityDTX-DRX-Information ::= SEQUENCE {
    uE-DTX-DRX-Offset                       UE-DTX-DRX-Offset,
    enabling-Delay                          Enabling-Delay,
    dTX-Information                         DTX-Information,
    dRX-Information                         DRX-Information                     OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { ContinuousPacketConnectivityDTX-DRX-Information-ExtIEs } }
    OPTIONAL,
    ...
}

ContinuousPacketConnectivityDTX-DRX-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ContinuousPacketConnectivityDTX-DRX-Information-to-Modify ::= SEQUENCE {
    uE-DTX-DRX-Offset                       UE-DTX-DRX-Offset                   OPTIONAL,
    enabling-Delay                          Enabling-Delay                      OPTIONAL,
    dTX-Information-to-Modify               DTX-Information-to-Modify           OPTIONAL,
```

```
    dRX-Information-to-Modify                   DRX-Information-to-Modify               OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { ContinuousPacketConnectivityDTX-DRX-Information-to-Modify-ExtIEs } }
            OPTIONAL,
    ...
}

ContinuousPacketConnectivityDTX-DRX-Information-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


ContinuousPacketConnectivityHS-SCCH-less-Capability ::= ENUMERATED {
    continuous-Packet-Connectivity-HS-SCCH-less-capable,
    continuous-Packet-Connectivity-HS-SCCH-less-capable-non-capable
}


ContinuousPacketConnectivityHS-SCCH-less-Information ::= SEQUENCE (SIZE (1..maxNrOfHS-DSCH-TBSs-HS-SCCHless)) OF ContinuousPacketConnectivityHS-
SCCH-less-InformationItem

ContinuousPacketConnectivityHS-SCCH-less-InformationItem ::= SEQUENCE {
    transport-Block-Size-Index              Transport-Block-Size-Index,
    hSPDSCH-Second-Code-Support             HSPDSCH-Second-Code-Support,
    iE-Extensions                           ProtocolExtensionContainer { { ContinuousPacketConnectivityHS-SCCH-less-Information-ExtIEs } }
    OPTIONAL,
    ...
}

ContinuousPacketConnectivityHS-SCCH-less-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


ContinuousPacketConnectivityHS-SCCH-less-Information-Response ::= SEQUENCE {
    hSPDSCH-First-Code-Index                HSPDSCH-First-Code-Index,
    hSPDSCH-Second-Code-Index               HSPDSCH-Second-Code-Index               OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { ContinuousPacketConnectivityHS-SCCH-less-Information-Response-ExtIEs } }
            OPTIONAL,
    ...
}

ContinuousPacketConnectivityHS-SCCH-less-Information-Response-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ControlGAP ::= INTEGER (1..255)

CPC-Information ::= SEQUENCE {
    continuousPacketConnectivityDTX-DRX-Information             ContinuousPacketConnectivityDTX-DRX-Information             OPTIONAL,
    continuousPacketConnectivityDTX-DRX-Information-to-Modify   ContinuousPacketConnectivityDTX-DRX-Information-to-Modify   OPTIONAL,
    continuousPacketConnectivityHS-SCCH-less-Information        ContinuousPacketConnectivityHS-SCCH-less-Information        OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { CPC-Information-ExtIEs} }                                        OPTIONAL,
    ...
}
```

```
CPC-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-ContinuousPacketConnectivityHS-SCCH-less-Deactivate-Indicator   CRITICALITY reject   EXTENSION ContinuousPacketConnectivityHS-SCCH-
less-Deactivate-Indicator   PRESENCE optional},
    ...
}

ContinuousPacketConnectivityHS-SCCH-less-Deactivate-Indicator ::= NULL

CQI-DTX-Timer ::= ENUMERATED {v0, v1, v2, v4, v8, v16, v32, v64, v128, v256, v512, infinity}
    -- Unit subframe


CQI-Feedback-Cycle ::= ENUMERATED {v0, v2, v4, v8, v10, v20, v40, v80, v160,..., v16, v32, v64}

CQI-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [9] subclause 4.2.1

CQI-RepetitionFactor ::= INTEGER (1..4,...)
-- Step: 1

CriticalityDiagnostics ::= SEQUENCE {
    procedureID                 ProcedureID             OPTIONAL,
    triggeringMessage           TriggeringMessage           OPTIONAL,
    procedureCriticality        Criticality             OPTIONAL,
    transactionID               TransactionID               OPTIONAL,
    iEsCriticalityDiagnostics   CriticalityDiagnostics-IE-List  OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} }                      OPTIONAL,
    ...
}

CriticalityDiagnostics-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
    SEQUENCE {
        iECriticality       Criticality,
        iE-ID               ProtocolIE-ID,
        repetitionNumber    RepetitionNumber0       OPTIONAL,
        iE-Extensions       ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs} }                    OPTIONAL,
        ...
    }

CriticalityDiagnostics-IE-List-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {   ID id-MessageStructure      CRITICALITY ignore      EXTENSION MessageStructure      PRESENCE optional       }|
    {   ID id-TypeOfError           CRITICALITY ignore      EXTENSION TypeOfError           PRESENCE mandatory      },
    ...
}

CRNC-CommunicationContextID ::= INTEGER (0..1048575)

CSBMeasurementID ::= INTEGER (0..65535)
```

```
CSBTransmissionID ::= INTEGER (0..65535)

-- ==========================================
--  D
-- ==========================================



DATA-ID ::= INTEGER (0..3)

DCH-ID ::= INTEGER (0..255)

DCH-FDD-Information ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-FDD-InformationItem

DCH-FDD-InformationItem ::= SEQUENCE {
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
    ul-FP-Mode                          UL-FP-Mode,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    dCH-SpecificInformationList         DCH-Specific-FDD-InformationList,
    iE-Extensions                       ProtocolExtensionContainer { { DCH-FDD-InformationItem-ExtIEs} }            OPTIONAL,
    ...
}

DCH-FDD-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlQos                      CRITICALITY ignore      EXTENSION TnlQos        PRESENCE optional           },
    ...
}

DCH-Specific-FDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-FDD-Item

DCH-Specific-FDD-Item ::=   SEQUENCE {
    dCH-ID                              DCH-ID,
    ul-TransportFormatSet               TransportFormatSet,
    dl-TransportFormatSet               TransportFormatSet,
    allocationRetentionPriority         AllocationRetentionPriority,
    frameHandlingPriority               FrameHandlingPriority,
    qE-Selector                         QE-Selector,
    iE-Extensions                       ProtocolExtensionContainer { { DCH-Specific-FDD-Item-ExtIEs} }              OPTIONAL,
    ...
}

DCH-Specific-FDD-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Unidirectional-DCH-Indicator    CRITICALITY reject  EXTENSION Unidirectional-DCH-Indicator              PRESENCE optional },
    ...
}

DCH-Indicator-For-E-DCH-HSDPA-Operation ::= ENUMERATED {
    dch-not-present
}

DCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem

DCH-InformationResponseItem ::= SEQUENCE {
```

```
    dCH-ID                                  DCH-ID,
    bindingID                               BindingID               OPTIONAL,
    transportLayerAddress                   TransportLayerAddress   OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DCH-InformationResponseItem-ExtIEs} }    OPTIONAL,
    ...
}

DCH-InformationResponseItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TransportBearerNotSetupIndicator    CRITICALITY ignore  EXTENSION TransportBearerNotSetupIndicator        PRESENCE optional }, -- FDD
only
    ...
}

DCH-TDD-Information ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-TDD-InformationItem

DCH-TDD-InformationItem ::= SEQUENCE {
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
    ul-FP-Mode                          UL-FP-Mode,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    dCH-SpecificInformationList         DCH-Specific-TDD-InformationList,
    iE-Extensions                           ProtocolExtensionContainer { { DCH-TDD-InformationItem-ExtIEs} }          OPTIONAL,
    ...
}

DCH-TDD-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-TnlQos                       CRITICALITY ignore      EXTENSION TnlQos        PRESENCE optional},
    ...
}

DCH-Specific-TDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-TDD-Item

DCH-Specific-TDD-Item ::=   SEQUENCE {
    dCH-ID                                  DCH-ID,
    ul-CCTrCH-ID                            CCTrCH-ID,
    dl-CCTrCH-ID                            CCTrCH-ID,
    ul-TransportFormatSet                   TransportFormatSet,
    dl-TransportFormatSet                   TransportFormatSet,
    allocationRetentionPriority             AllocationRetentionPriority,
    frameHandlingPriority                   FrameHandlingPriority,
    qE-Selector                             QE-Selector                     OPTIONAL,
    -- This IE shall be present if DCH is part of set of Coordinated DCHs
    iE-Extensions                           ProtocolExtensionContainer { { DCH-Specific-TDD-Item-ExtIEs} }            OPTIONAL,
    ...
}

DCH-Specific-TDD-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Unidirectional-DCH-Indicator    CRITICALITY reject  EXTENSION Unidirectional-DCH-Indicator             PRESENCE optional },
    ...
}

FDD-DCHs-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF FDD-DCHs-to-ModifyItem

FDD-DCHs-to-ModifyItem   ::= SEQUENCE {
```

```
    ul-FP-Mode                          UL-FP-Mode      OPTIONAL,
    toAWS                               ToAWS           OPTIONAL,
    toAWE                               ToAWE           OPTIONAL,
    transportBearerRequestIndicator     TransportBearerRequestIndicator,
    dCH-SpecificInformationList         DCH-ModifySpecificInformation-FDD,
    iE-Extensions                       ProtocolExtensionContainer { { FDD-DCHs-to-ModifyItem-ExtIEs} }              OPTIONAL,
    ...
}

FDD-DCHs-to-ModifyItem-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-TnlQos                       CRITICALITY ignore      EXTENSION TnlQos        PRESENCE optional},
    ...
}

DCH-ModifySpecificInformation-FDD::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifySpecificItem-FDD

DCH-ModifySpecificItem-FDD::=   SEQUENCE {
    dCH-ID                                  DCH-ID,
    ul-TransportFormatSet                   TransportFormatSet          OPTIONAL,
    dl-TransportFormatSet                   TransportFormatSet          OPTIONAL,
    allocationRetentionPriority             AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority                   FrameHandlingPriority       OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DCH-ModifySpecificItem-FDD-ExtIEs} }     OPTIONAL,
    ...
}

DCH-ModifySpecificItem-FDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-Unidirectional-DCH-Indicator         CRITICALITY reject      EXTENSION Unidirectional-DCH-Indicator   PRESENCE optional},
    ...
}


TDD-DCHs-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifyItem-TDD

DCH-ModifyItem-TDD ::= SEQUENCE {
    ul-FP-Mode                          UL-FP-Mode      OPTIONAL,
    toAWS                               ToAWS           OPTIONAL,
    toAWE                               ToAWE           OPTIONAL,
    transportBearerRequestIndicator     TransportBearerRequestIndicator,
    dCH-SpecificInformationList         DCH-ModifySpecificInformation-TDD,
    iE-Extensions                       ProtocolExtensionContainer { { TDD-DCHs-to-ModifyItem-ExtIEs} }              OPTIONAL,
    ...
}

TDD-DCHs-to-ModifyItem-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-TnlQos                       CRITICALITY ignore      EXTENSION TnlQos        PRESENCE optional},
    ...
}

DCH-ModifySpecificInformation-TDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifySpecificItem-TDD

DCH-ModifySpecificItem-TDD ::=  SEQUENCE {
    dCH-ID                                  DCH-ID,
    ul-CCTrCH-ID                            CCTrCH-ID                   OPTIONAL,
```

```
    dl-CCTrCH-ID                                CCTrCH-ID                   OPTIONAL,
    ul-TransportFormatSet                       TransportFormatSet          OPTIONAL,
    dl-TransportFormatSet                       TransportFormatSet          OPTIONAL,
    allocationRetentionPriority                 AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority                       FrameHandlingPriority       OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { DCH-ModifySpecificItem-TDD-ExtIEs} }        OPTIONAL,
    ...
}

DCH-ModifySpecificItem-TDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedChannelsCapacityConsumptionLaw ::= SEQUENCE ( SIZE(1..maxNrOfSF) ) OF
    SEQUENCE {
        dl-Cost-1       INTEGER (0..65535),
        dl-Cost-2       INTEGER (0..65535),
        ul-Cost-1       INTEGER (0..65535),
        ul-Cost-2       INTEGER (0..65535),
        iE-Extensions       ProtocolExtensionContainer { { DedicatedChannelsCapacityConsumptionLaw-ExtIEs } }         OPTIONAL,
    ...
}

DedicatedChannelsCapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedMeasurementType ::= ENUMERATED {
    sir,
    sir-error,
    transmitted-code-power,
    rscp,
    rx-timing-deviation,
    round-trip-time,
    ...,
    rx-timing-deviation-LCR,
    angle-Of-Arrival-LCR,
    hs-sich-quality,
    best-Cell-Portions,
    rx-timing-deviation-768,
    rx-timing-deviation-384-extended

}

DedicatedMeasurementValue ::= CHOICE {
    sIR-Value                       SIR-Value,
    sIR-ErrorValue                  SIR-Error-Value,
    transmittedCodePowerValue           Transmitted-Code-Power-Value,
    rSCP                                RSCP-Value,
    rxTimingDeviationValue              Rx-Timing-Deviation-Value,
    roundTripTime                       Round-Trip-Time-Value,
    ...,
    extension-DedicatedMeasurementValue     Extension-DedicatedMeasurementValue
}
```

```
Extension-DedicatedMeasurementValue ::= ProtocolIE-Single-Container {{ Extension-DedicatedMeasurementValueIE }}

Extension-DedicatedMeasurementValueIE NBAP-PROTOCOL-IES ::= {
    { ID id-Rx-Timing-Deviation-Value-LCR   CRITICALITY reject  TYPE Rx-Timing-Deviation-Value-LCR           PRESENCE mandatory }|
    { ID id-Angle-Of-Arrival-Value-LCR          CRITICALITY reject  TYPE Angle-Of-Arrival-Value-LCR          PRESENCE mandatory }|
    { ID id-HS-SICH-Reception-Quality           CRITICALITY reject  TYPE HS-SICH-Reception-Quality-Value     PRESENCE mandatory }|
    { ID id-Best-Cell-Portions-Value            CRITICALITY reject  TYPE Best-Cell-Portions-Value            PRESENCE mandatory }|
    { ID id-Rx-Timing-Deviation-Value-768       CRITICALITY reject  TYPE Rx-Timing-Deviation-Value-768       PRESENCE mandatory }|
    { ID id-Rx-Timing-Deviation-Value-384-ext   CRITICALITY reject  TYPE Rx-Timing-Deviation-Value-384-ext   PRESENCE mandatory }|
    { ID id-Extended-Round-Trip-Time-Value      CRITICALITY reject  TYPE Extended-Round-Trip-Time-Value      PRESENCE mandatory },
    ...
}

DedicatedMeasurementValueInformation ::= CHOICE {
    measurementAvailable        DedicatedMeasurementAvailable,
    measurementnotAvailable     DedicatedMeasurementnotAvailable
}

DedicatedMeasurementAvailable::= SEQUENCE {
    dedicatedmeasurementValue       DedicatedMeasurementValue,
    cFN                             CFN                         OPTIONAL,
    ie-Extensions                   ProtocolExtensionContainer { { DedicatedMeasurementAvailableItem-ExtIEs} }        OPTIONAL,
    ...
}

DedicatedMeasurementAvailableItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedMeasurementnotAvailable ::= NULL

DelayedActivation ::= CHOICE {
    cfn                     CFN,
    separate-indication     NULL
}

DelayedActivationUpdate ::= CHOICE {
    activate        Activate-Info,
    deactivate      Deactivate-Info
}

Activate-Info ::= SEQUENCE {
    activation-type         Execution-Type,
    initial-dl-tx-power     DL-Power,
    firstRLS-Indicator      FirstRLS-Indicator                                  OPTIONAL, --FDD Only
    propagation-delay       PropagationDelay                                    OPTIONAL, --FDD Only
```

```
    iE-Extensions           ProtocolExtensionContainer { { Activate-Info-ExtIEs} }      OPTIONAL,
    ...
}

Activate-Info-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-ExtendedPropagationDelay    CRITICALITY reject  EXTENSION ExtendedPropagationDelay    PRESENCE mandatory }, --FDD Only
    ...
}

Deactivate-Info ::= SEQUENCE {
    deactivation-type       Execution-Type,
    iE-Extensions           ProtocolExtensionContainer { { Deactivate-Info-ExtIEs} }        OPTIONAL,
    ...
}

Deactivate-Info-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Execution-Type ::= CHOICE {
    synchronised    CFN,
    unsynchronised  NULL
}

DeltaSIR                ::= INTEGER (0..30)
-- Unit dB, Step 0.1 dB, Range 0..3 dB.

DGANSSCorrections ::= SEQUENCE {
    dGANSS-ReferenceTime                INTEGER(0..119),
    dGANSS-Information                  DGANSS-Information,
    ie-Extensions                       ProtocolExtensionContainer { { DGANSSCorrections-ExtIEs } }                 OPTIONAL,
    ...
}

DGANSSCorrections-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGANSS-Information ::= SEQUENCE (SIZE (1..maxSgnType)) OF DGANSS-InformationItem

DGANSS-InformationItem ::= SEQUENCE {
    gANSS-SignalId                      GANSS-Signal-ID                                                             OPTIONAL,
    gANSS-StatusHealth                  GANSS-StatusHealth,
-- The following IE shall be present if the Status Health IE value is not equal to 'no data' or 'invalid data'
    dGANSS-SignalInformation            DGANSS-SignalInformation                                                    OPTIONAL,
    ie-Extensions                       ProtocolExtensionContainer { { DGANSS-InformationItem-ExtIEs } }            OPTIONAL,
    ...
}
```

```
DGANSS-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGANSS-SignalInformation ::= SEQUENCE (SIZE (1..maxGANSSSat)) OF DGANSS-SignalInformationItem


DGANSS-SignalInformationItem ::= SEQUENCE {
    satId                           INTEGER(0..63),
    gANSS-iod                       BIT STRING (SIZE (10)),
    udre                            UDRE,
    ganss-prc                       INTEGER(-2047..2047),
    ganss-rrc                       INTEGER(-127..127),
    ie-Extensions                   ProtocolExtensionContainer { { DGANSS-SignalInformationItem-ExtIEs } }      OPTIONAL,
    ...
}


DGANSS-SignalInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGANSSThreshold ::= SEQUENCE {
    pRCDeviation                    PRCDeviation,
    ie-Extensions                   ProtocolExtensionContainer { { DGANSSThreshold-ExtIEs } }                   OPTIONAL,
    ...
}

DGANSSThreshold-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGPSCorrections ::= SEQUENCE {
   gpstow               GPSTOW,
   status-health        GPS-Status-Health,
   satelliteinfo        SAT-Info-DGPSCorrections,
   ie-Extensions        ProtocolExtensionContainer { { DGPSCorrections-ExtIEs} }       OPTIONAL,
   ...
}

DGPSCorrections-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGPSThresholds ::= SEQUENCE {
   prcdeviation         PRCDeviation,
   ie-Extensions        ProtocolExtensionContainer { { DGPSThresholds-ExtIEs} }     OPTIONAL,
```

```
    ...
}

DGPSThresholds-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiscardTimer ::= ENUMERATED
{v20,v40,v60,v80,v100,v120,v140,v160,v180,v200,v250,v300,v400,v500,v750,v1000,v1250,v1500,v1750,v2000,v2500,v3000,v3500,v4000,v4500,v5000,v7500,
 ...
}

DiversityControlField ::= ENUMERATED {
    may,
    must,
    must-not,
    ...
}

DiversityMode ::= ENUMERATED {
    none,
    sTTD,
    closed-loop-mode1,
    not-used-closed-loop-mode2,
    ...
}

DL-DPCH-SlotFormat ::= INTEGER (0..16,...)

DL-DPCH-TimingAdjustment ::= ENUMERATED {
    timing-advance,
    timing-delay
}

DL-Timeslot-Information ::= SEQUENCE (SIZE (1.. maxNrOfDLTSs)) OF DL-Timeslot-InformationItem

DL-Timeslot-InformationItem  ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType,
    tFCI-Presence                           TFCI-Presence,
    dL-Code-Information                     TDD-DL-Code-Information,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Timeslot-InformationItem-ExtIEs} }      OPTIONAL,
    ...
}

DL-Timeslot-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1.. maxNrOfDLTSLCRs)) OF DL-TimeslotLCR-InformationItem

DL-TimeslotLCR-InformationItem   ::= SEQUENCE {
    timeSlotLCR                             TimeSlotLCR,
    midambleShiftLCR                        MidambleShiftLCR,
```

```
    tFCI-Presence                           TFCI-Presence,
    dL-Code-LCR-Information                 TDD-DL-Code-LCR-Information,
    iE-Extensions                           ProtocolExtensionContainer { { DL-TimeslotLCR-InformationItem-ExtIEs} }   OPTIONAL,
    ...
}

DL-TimeslotLCR-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Initial-DL-Power-TimeslotLCR-InformationItem    CRITICALITY ignore   EXTENSION DL-Power                   PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-Maximum-DL-Power-TimeslotLCR-InformationItem    CRITICALITY ignore   EXTENSION DL-Power                   PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-Minimum-DL-Power-TimeslotLCR-InformationItem  CRITICALITY ignore    EXTENSION DL-Power                   PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

DL-Timeslot768-Information ::= SEQUENCE (SIZE (1.. maxNrOfDLTSs)) OF DL-Timeslot768-InformationItem

DL-Timeslot768-InformationItem   ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType768            MidambleShiftAndBurstType768,
    tFCI-Presence                           TFCI-Presence,
    dL-Code-768-Information                 TDD-DL-Code-768-Information,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Timeslot768-InformationItem-ExtIEs} }   OPTIONAL,
    ...
}

DL-Timeslot768-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-FrameType ::= ENUMERATED {
    typeA,
    typeB,
    ...
}

DL-or-Global-CapacityCredit ::= INTEGER (0..65535)

DL-Power ::= INTEGER (-350..150)
-- Value = DL-Power/10
-- Unit dB, Range -35dB .. +15dB, Step +0.1dB

DLPowerAveragingWindowSize ::= INTEGER (1..60)

DL-PowerBalancing-Information ::= SEQUENCE {
    powerAdjustmentType                 PowerAdjustmentType,
    dLReferencePower                    DL-Power        OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common'
    dLReferencePowerList-DL-PC-Rqst     DL-ReferencePowerInformationList        OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Individual'
    maxAdjustmentStep                   MaxAdjustmentStep       OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    adjustmentPeriod                    AdjustmentPeriod        OPTIONAL,
```

```
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    adjustmentRatio                     ScaledAdjustmentRatio   OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    iE-Extensions                       ProtocolExtensionContainer { { DL-PowerBalancing-Information-ExtIEs } } OPTIONAL,
    ...
}

DL-PowerBalancing-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-ReferencePowerInformationList        ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF DL-ReferencePowerInformationItem

DL-ReferencePowerInformationItem ::= SEQUENCE {
    rL-ID                       RL-ID,
    dl-Reference-Power          DL-Power,
    iE-Extensions               ProtocolExtensionContainer { {DL-ReferencePowerInformationItem-ExtIEs} } OPTIONAL,
    ...
}

DL-ReferencePowerInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-PowerBalancing-ActivationIndicator   ::= ENUMERATED {
    dL-PowerBalancing-Activated
}

DL-PowerBalancing-UpdatedIndicator  ::= ENUMERATED {
    dL-PowerBalancing-Updated
}

DL-ScramblingCode ::= INTEGER (0..15)
-- 0= Primary scrambling code of the cell, 1..15= Secondary scrambling code --

DL-TimeslotISCP ::= INTEGER (0..91)

DL-TimeslotISCPInfo ::= SEQUENCE (SIZE (1..maxNrOfDLTSs)) OF DL-TimeslotISCPInfoItem

DL-TimeslotISCPInfoItem ::= SEQUENCE {
    timeSlot                    TimeSlot,
    dL-TimeslotISCP             DL-TimeslotISCP,
    iE-Extensions               ProtocolExtensionContainer { {DL-TimeslotISCPInfoItem-ExtIEs} }                     OPTIONAL,
    ...
    }

DL-TimeslotISCPInfoItem-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TimeslotISCPInfoLCR ::= SEQUENCE (SIZE (1..maxNrOfDLTSLCRs)) OF DL-TimeslotISCPInfoItemLCR

DL-TimeslotISCPInfoItemLCR ::= SEQUENCE {
    timeSlotLCR                 TimeSlotLCR,
```

```
    dL-TimeslotISCP             DL-TimeslotISCP,
    iE-Extensions               ProtocolExtensionContainer { {DL-TimeslotISCPInfoItemLCR-ExtIEs} }                      OPTIONAL,
    ...
    }

DL-TimeslotISCPInfoItemLCR-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TPC-Pattern01Count ::= INTEGER (0..30,...)

DLTransmissionBranchLoadValue ::= INTEGER (0..101,...)


Downlink-Compressed-Mode-Method     ::= ENUMERATED {
    not-Used-puncturing,
    sFdiv2,
    higher-layer-scheduling,
    ...
}

DPC-Mode ::= ENUMERATED {
    mode0,
    mode1,
    ...
}

DPCH-ID ::= INTEGER (0..239)

DPCH-ID768 ::= INTEGER (0..479)

DRX-Information ::= SEQUENCE {
    uE-DRX-Cycle                            UE-DRX-Cycle,
    inactivity-Threshold-for-UE-DRX-Cycle                           Inactivity-Threshold-for-UE-DRX-Cycle,
    inactivity-Threshold-for-UE-Grant-Monitoring                    Inactivity-Threshold-for-UE-Grant-Monitoring,
    uE-DRX-Grant-Monitoring                 UE-DRX-Grant-Monitoring,
    iE-Extensions                           ProtocolExtensionContainer { {DRX-Information-ExtIEs} } OPTIONAL,
    ...
}

DRX-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DRX-Information-to-Modify ::= CHOICE {
    modify          DRX-Information-to-Modify-Items,
    deactivate      NULL,
    ...
}

DRX-Information-to-Modify-Items ::= SEQUENCE {
    uE-DRX-Cycle                                                    UE-DRX-Cycle                                    OPTIONAL,
    inactivity-Threshold-for-UE-DRX-Cycle                           Inactivity-Threshold-for-UE-DRX-Cycle           OPTIONAL,
    inactivity-Threshold-for-UE-Grant-Monitoring                    Inactivity-Threshold-for-UE-Grant-Monitoring    OPTIONAL,
```

```
    uE-DRX-Grant-Monitoring                                 UE-DRX-Grant-Monitoring                         OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { {DRX-Information-to-Modify-Items-ExtIEs} } OPTIONAL,
    ...
}

DRX-Information-to-Modify-Items-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-ID ::= INTEGER (0..255)

DSCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationResponseItem

DSCH-InformationResponseItem ::= SEQUENCE {
    dSCH-ID                                     DSCH-ID,
    bindingID                                   BindingID                   OPTIONAL,
    transportLayerAddress                       TransportLayerAddress       OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { DSCH-InformationResponseItem-ExtIEs } }     OPTIONAL,
    ...
}

DSCH-InformationResponseItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-TDD-Information ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-TDD-InformationItem

DSCH-TDD-InformationItem ::= SEQUENCE {
    dSCH-ID                             DSCH-ID,
    cCTrCH-ID                           CCTrCH-ID,
    transportFormatSet                  TransportFormatSet,
    allocationRetentionPriority         AllocationRetentionPriority,
    frameHandlingPriority               FrameHandlingPriority,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    iE-Extensions                       ProtocolExtensionContainer { { DSCH-TDD-InformationItem-ExtIEs} }         OPTIONAL,
    ...
}

DSCH-TDD-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-bindingID                   CRITICALITY ignore      EXTENSION   BindingID                           PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-transportlayeraddress       CRITICALITY ignore      EXTENSION   TransportLayerAddress               PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TnlQos                      CRITICALITY ignore      EXTENSION TnlQos                                PRESENCE optional},
    ...
}

DsField ::= BIT STRING (SIZE (8))

DTX-Cycle-2ms-Items ::= SEQUENCE {
    uE-DTX-Cycle1-2ms               UE-DTX-Cycle1-2ms,
    uE-DTX-Cycle2-2ms               UE-DTX-Cycle2-2ms,
    mAC-DTX-Cycle-2ms               MAC-DTX-Cycle-2ms,
```

```
    iE-Extensions                           ProtocolExtensionContainer { { DTX-Cycle-2ms-Items-ExtIEs} }            OPTIONAL,
    ...
}

DTX-Cycle-2ms-Items-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DTX-Cycle-2ms-to-Modify-Items ::= SEQUENCE {
    uE-DTX-Cycle1-2ms               UE-DTX-Cycle1-2ms,
    uE-DTX-Cycle2-2ms               UE-DTX-Cycle2-2ms,
    mAC-DTX-Cycle-2ms               MAC-DTX-Cycle-2ms,
    iE-Extensions                           ProtocolExtensionContainer { { DTX-Cycle-2ms-to-Modify-Items-ExtIEs} }      OPTIONAL,
    ...
}

DTX-Cycle-2ms-to-Modify-Items-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DTX-Cycle-10ms-Items ::= SEQUENCE {
    uE-DTX-Cycle1-10ms              UE-DTX-Cycle1-10ms,
    uE-DTX-Cycle2-10ms              UE-DTX-Cycle2-10ms,
    mAC-DTX-Cycle-10ms              MAC-DTX-Cycle-10ms,
    iE-Extensions                           ProtocolExtensionContainer { { DTX-Cycle-10ms-Items-ExtIEs} }           OPTIONAL,
    ...
}

DTX-Cycle-10ms-Items-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DTX-Cycle-10ms-to-Modify-Items ::= SEQUENCE {
    uE-DTX-Cycle1-10ms              UE-DTX-Cycle1-10ms,
    uE-DTX-Cycle2-10ms              UE-DTX-Cycle2-10ms,
    mAC-DTX-Cycle-10ms              MAC-DTX-Cycle-10ms,
    iE-Extensions                           ProtocolExtensionContainer { { DTX-Cycle-10ms-to-Modify-Items-ExtIEs} }       OPTIONAL,
    ...
}

DTX-Cycle-10ms-to-Modify-Items-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DTX-Information ::= SEQUENCE {
    e-DCH-TTI-Length                    E-DCH-TTI-Length,
    inactivity-Threshold-for-UE-DTX-Cycle2                  Inactivity-Threshold-for-UE-DTX-Cycle2,
    uE-DTX-Long-Preamble                UE-DTX-Long-Preamble,
    mAC-Inactivity-Threshold                MAC-Inactivity-Threshold    ,
    cQI-DTX-Timer               CQI-DTX-Timer,
    uE-DPCCH-burst1             UE-DPCCH-burst1,
    uE-DPCCH-burst2             UE-DPCCH-burst2,
    iE-Extensions               ProtocolExtensionContainer { {DTX-Information-ExtIEs} } OPTIONAL,
    ...
```

```
}

DTX-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


DTX-Information-to-Modify ::= CHOICE {
    modify          DTX-Information-to-Modify-Items,
    deactivate      NULL,
    ...
}

DTX-Information-to-Modify-Items ::= SEQUENCE {
    e-DCH-TTI-Length-to-Modify      E-DCH-TTI-Length-to-Modify          OPTIONAL,
    inactivity-Threshold-for-UE-DTX-Cycle2                  Inactivity-Threshold-for-UE-DTX-Cycle2              OPTIONAL,
    uE-DTX-Long-Preamble            UE-DTX-Long-Preamble                OPTIONAL,
    mAC-Inactivity-Threshold            MAC-Inactivity-Threshold                OPTIONAL,
    cQI-DTX-Timer                   CQI-DTX-Timer                       OPTIONAL,
    uE-DPCCH-burst1                 UE-DPCCH-burst1                     OPTIONAL,
    uE-DPCCH-burst2                 UE-DPCCH-burst2                     OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DTX-Information-to-Modify-Items-ExtIEs} } OPTIONAL,
    ...
}

DTX-Information-to-Modify-Items-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


DwPCH-Power ::= INTEGER (-150..400,...)
-- DwPCH-power = power * 10
-- If power <= -15 DwPCH shall be set to -150
-- If power >= 40 DwPCH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step +0.1dB


-- ========================================
--  E
-- ========================================

E-AGCH-FDD-Code-Information ::= CHOICE {
    replace                 E-AGCH-FDD-Code-List,
    remove                  NULL,
    ...
}

E-AGCH-FDD-Code-List ::= SEQUENCE (SIZE (1..maxNrOfE-AGCHs)) OF FDD-DL-ChannelisationCodeNumber


E-DCH-Capability ::= ENUMERATED {
    e-DCH-capable,
    e-DCH-non-capable
}
```

```
E-DCHCapacityConsumptionLaw ::= SEQUENCE {
        e-DCH-SF-allocation     E-DCH-SF-allocation,
        dl-Cost-1               INTEGER (0..65535)                                                  OPTIONAL,
        dl-Cost-2               INTEGER (0..65535)                                                  OPTIONAL,
        iE-Extensions           ProtocolExtensionContainer { { E-DCHCapacityConsumptionLaw-ExtIEs } }  OPTIONAL,
    ...
}

E-DCHCapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-CapacityConsumptionLaw ::= SEQUENCE {
        ul-Cost             INTEGER (0..65535),
        dl-Cost             INTEGER (0..65535)                                                  OPTIONAL,
        iE-Extensions           ProtocolExtensionContainer { { E-DCH-TDD-CapacityConsumptionLaw-ExtIEs } }  OPTIONAL,
    ...
}

E-DCH-TDD-CapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-SF-allocation ::= SEQUENCE ( SIZE(1..maxNrOfCombEDPDCH) ) OF
    SEQUENCE {
        ul-Cost-1       INTEGER (0..65535),
        ul-Cost-2       INTEGER (0..65535),
        iE-Extensions       ProtocolExtensionContainer { { E-DCH-SF-allocation-ExtIEs } }       OPTIONAL,
    ...
}

E-DCH-SF-allocation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TTI2ms-Capability ::= BOOLEAN
-- True = TTI 10ms and 2ms supported for E-DCH False = only TTI 10ms supported for E-DCH

E-DCH-SF-Capability ::= ENUMERATED {
    sf64,
    sf32,
    sf16,
    sf8,
    sf4,
    sf4x2,
    sf2x2,
    sf4x2-and-sf2x2,
    ...
}

E-DCH-HARQ-Combining-Capability ::= ENUMERATED {
    iR-Combining-capable,
    chase-Combining-capable,
```

```
    iR-and-Chase-Combining-capable
}

E-DCH-DDI-Value ::= INTEGER (0..62)

E-DCH-FDD-DL-Control-Channel-Information ::= SEQUENCE {
    e-AGCH-And-E-RGCH-E-HICH-FDD-Scrambling-Code    DL-ScramblingCode                                                    OPTIONAL,
    e-AGCH-Channelisation-Code                      FDD-DL-ChannelisationCodeNumber                                      OPTIONAL,
    primary-e-RNTI                                  E-RNTI                                                               OPTIONAL,
    secondary-e-RNTI                                E-RNTI                                                               OPTIONAL,
    e-RGCH-E-HICH-Channelisation-Code               FDD-DL-ChannelisationCodeNumber                                      OPTIONAL,
    e-RGCH-Signature-Sequence                       E-RGCH-Signature-Sequence                                            OPTIONAL,
    e-HICH-Signature-Sequence                       E-HICH-Signature-Sequence                                            OPTIONAL,
    serving-Grant-Value                             E-Serving-Grant-Value                                                OPTIONAL,
    primary-Secondary-Grant-Selector                E-Primary-Secondary-Grant-Selector                                   OPTIONAL,
    e-RGCH-Release-Indicator                        E-RGCH-Release-Indicator
    OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { E-DCH-FDD-DL-Control-Channel-Information-ExtIEs} }   OPTIONAL,
    ...
}

E-DCH-FDD-DL-Control-Channel-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Default-Serving-Grant-in-DTX-Cycle2     CRITICALITY ignore      EXTENSION E-Serving-Grant-Value              PRESENCE optional },
    ...
}

E-DCH-FDD-Information ::= SEQUENCE {
    e-DCH-MACdFlows-Information                     E-DCH-MACdFlows-Information,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH      HARQ-Process-Allocation-2ms-EDCH                                     OPTIONAL,
    e-DCH-Maximum-Bitrate                           E-DCH-Maximum-Bitrate                                                OPTIONAL,
    e-DCH-Processing-Overload-Level                 E-DCH-Processing-Overload-Level                                      OPTIONAL,
    e-DCH-Reference-Power-Offset                    E-DCH-Reference-Power-Offset                                         OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { E-DCH-FDD-Information-ExtIEs} }       OPTIONAL,
    ...
}

E-DCH-FDD-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-PowerOffset-for-SchedulingInfo        CRITICALITY ignore  EXTENSION   E-DCH-PowerOffset-for-SchedulingInfo   PRESENCE optional}|
    { ID id-SixteenQAM-UL-Operation-Indicator           CRITICALITY reject  EXTENSION   SixteenQAM-UL-Operation-Indicator     PRESENCE optional},
    ...
}

E-DCH-FDD-Information-Response ::= SEQUENCE {
    e-DCH-MACdFlow-Specific-InformationResp         E-DCH-MACdFlow-Specific-InformationResp                              OPTIONAL,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH      HARQ-Process-Allocation-2ms-EDCH                                     OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { E-DCH-FDD-Information-Response-ExtIEs } }   OPTIONAL,
    ...
}

E-DCH-FDD-Information-Response-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-FDD-Information-to-Modify ::= SEQUENCE {
```

```
    e-DCH-MACdFlow-Specific-Info-to-Modify          E-DCH-MACdFlow-Specific-InfoList-to-Modify                                  OPTIONAL,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH      HARQ-Process-Allocation-2ms-EDCH                                            OPTIONAL,
    e-DCH-Maximum-Bitrate                           E-DCH-Maximum-Bitrate                                                       OPTIONAL,
    e-DCH-Processing-Overload-Level                 E-DCH-Processing-Overload-Level                                             OPTIONAL,
    e-DCH-Reference-Power-Offset                    E-DCH-Reference-Power-Offset                                                OPTIONAL,
    mACeReset-Indicator                             MACeReset-Indicator                                                         OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { E-DCH-FDD-Information-to-Modify-ExtIEs} }    OPTIONAL,
    ...
}

E-DCH-FDD-Information-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-PowerOffset-for-SchedulingInfo        CRITICALITY ignore  EXTENSION   E-DCH-PowerOffset-for-SchedulingInfo   PRESENCE optional}|
    { ID id-SixteenQAM-UL-Operation-Indicator           CRITICALITY reject  EXTENSION   SixteenQAM-UL-Operation-Indicator      PRESENCE optional},
    ...
}

E-DCH-FDD-Update-Information ::= SEQUENCE {
    e-DCH-MACdFlow-Specific-UpdateInformation       E-DCH-MACdFlow-Specific-UpdateInformation                                   OPTIONAL,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH      HARQ-Process-Allocation-2ms-EDCH                                            OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { E-DCH-FDD-Update-Information-ExtIEs } }      OPTIONAL,
    ...
}

E-DCH-FDD-Update-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-DCH-MACdFlow-Specific-UpdateInformation ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-Specific-UpdateInformation-Item

E-DCH-MACdFlow-Specific-UpdateInformation-Item ::= SEQUENCE {
    e-DCH-MACdFlow-ID                               E-DCH-MACdFlow-ID,
    hARQ-Process-Allocation-NonSched-2ms-EDCH       HARQ-Process-Allocation-2ms-EDCH                                            OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { E-DCH-MACdFlow-Specific-UpdateInformation-Item-ExtIEs} }
    OPTIONAL,
    ...
}

E-DCH-MACdFlow-Specific-UpdateInformation-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-DCH-Grant-Type-Information ::= CHOICE {
    e-DCH-Non-Scheduled-Transmission-Grant      E-DCH-Non-Scheduled-Transmission-Grant-Items,
    e-DCH-Scheduled-Transmission-Grant          NULL,
    ...
}

E-DCH-LogicalChannelInformation ::= SEQUENCE (SIZE (1..maxNoOfLogicalChannels)) OF E-DCH-LogicalChannelInformationItem

E-DCH-LogicalChannelInformationItem ::= SEQUENCE {
    logicalChannelId                LogicalChannelID,
    schedulingPriorityIndicator     SchedulingPriorityIndicator,
```

```
    schedulingInformation           SchedulingInformation,
    mACesGuaranteedBitRate          MACesGuaranteedBitRate      OPTIONAL,
    e-DCH-DDI-Value                 E-DCH-DDI-Value,
    mACd-PDU-Size-List              E-DCH-MACdPDU-SizeList,
    iE-Extensions                   ProtocolExtensionContainer { { E-DCH-LogicalChannelInformationItem-ExtIEs } }        OPTIONAL,
    ...
}

E-DCH-LogicalChannelInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-Maximum-Bitrate ::= INTEGER (0..5742,...,5743..11498)

E-DCH-PowerOffset-for-SchedulingInfo ::= INTEGER (0.. maxNrOfEDCH-HARQ-PO-QUANTSTEPs)

E-DCH-Processing-Overload-Level ::= INTEGER (0..10,...)

E-DCH-Reference-Power-Offset ::= INTEGER (0.. maxNrOfEDCH-HARQ-PO-QUANTSTEPs)

E-DCH-MACdPDU-SizeList ::= SEQUENCE (SIZE (1.. maxNrOfMACdPDUSize)) OF E-DCH-MACdPDU-SizeListItem

E-DCH-MACdPDU-SizeListItem ::= SEQUENCE {
    mACdPDU-Size                    MACdPDU-Size,
    iE-Extensions                   ProtocolExtensionContainer { { E-DCH-MACdPDU-SizeListItem-ExtIEs } }        OPTIONAL,
    ...
}

E-DCH-MACdPDU-SizeListItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-LogicalChannelToModify ::= SEQUENCE (SIZE (1..maxNoOfLogicalChannels)) OF E-DCH-LogicalChannelToModifyItem

E-DCH-LogicalChannelToModifyItem ::= SEQUENCE {
    logicalChannelId                LogicalChannelID,
    schedulingPriorityIndicator     SchedulingPriorityIndicator     OPTIONAL,
    schedulingInformation           SchedulingInformation       OPTIONAL,
    mACesGuaranteedBitRate          MACesGuaranteedBitRate      OPTIONAL,
    e-DCH-DDI-Value                 E-DCH-DDI-Value                 OPTIONAL,
    mACd-PDU-Size-List              E-DCH-MACdPDU-SizeToModifyList,
    iE-Extensions                   ProtocolExtensionContainer { { E-DCH-LogicalChannelToModifyItem-ExtIEs } }        OPTIONAL,
    ...
}

E-DCH-LogicalChannelToModifyItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-MACdPDU-SizeToModifyList ::= SEQUENCE (SIZE (0.. maxNrOfMACdPDUSize)) OF E-DCH-MACdPDU-SizeListItem



E-DCH-LogicalChannelToDelete ::= SEQUENCE (SIZE (1..maxNoOfLogicalChannels)) OF E-DCH-LogicalChannelToDeleteItem
```

```
E-DCH-LogicalChannelToDeleteItem ::= SEQUENCE {
    logicalChannelId               LogicalChannelID,
    iE-Extensions                  ProtocolExtensionContainer { { E-DCH-LogicalChannelToDeleteItem-ExtIEs } }        OPTIONAL,
    ...
}

E-DCH-LogicalChannelToDeleteItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

LogicalChannelID ::= INTEGER (1..15)


E-DCH-HARQ-PO-FDD ::= INTEGER (0.. maxNrOfEDCH-HARQ-PO-QUANTSTEPs)

E-DCH-MACdFlow-ID ::= INTEGER (0..maxNrOfEDCHMACdFlows-1)

E-DCH-MACdFlows-Information ::= SEQUENCE {
    e-DCH-MACdFlow-Specific-Info                E-DCH-MACdFlow-Specific-InfoList,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-MACdFlows-Information-ExtIEs} }                OPTIONAL,
    ...
}

E-DCH-MACdFlows-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-MACdFlow-Multiplexing-List ::= BIT STRING ( SIZE(maxNrOfEDCHMACdFlows) )

E-DCH-MACdFlow-Specific-InfoList ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-Specific-InfoItem

E-DCH-MACdFlow-Specific-InfoItem ::= SEQUENCE {
    e-DCH-MACdFlow-ID                           E-DCH-MACdFlow-ID,
    allocationRetentionPriority                 AllocationRetentionPriority,
    tnlQos                                      TnlQos                                                                  OPTIONAL,
    payloadCRC-PresenceIndicator                PayloadCRC-PresenceIndicator,
    maximum-Number-of-Retransmissions-For-E-DCH Maximum-Number-of-Retransmissions-For-E-DCH,
    eDCH-HARQ-PO-FDD                            E-DCH-HARQ-PO-FDD,
    eDCH-MACdFlow-Multiplexing-List             E-DCH-MACdFlow-Multiplexing-List                                        OPTIONAL,
    eDCH-Grant-Type-Information                 E-DCH-Grant-Type-Information,
    bundlingModeIndicator                       BundlingModeIndicator                                   OPTIONAL,
    eDCHLogicalChannelInformation               E-DCH-LogicalChannelInformation,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-MACdFlow-Specific-InfoItem-ExtIEs} }       OPTIONAL,
    ...
}

E-DCH-MACdFlow-Specific-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TransportBearerNotRequestedIndicator    CRITICALITY ignore  EXTENSION TransportBearerNotRequestedIndicator   PRESENCE optional },
    ...
}

E-DCH-MACdFlow-Specific-InformationResp ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-Specific-InformationResp-Item
```

```
E-DCH-MACdFlow-Specific-InformationResp-Item ::= SEQUENCE {
    e-DCH-MACdFlow-ID                           E-DCH-MACdFlow-ID,
    bindingID                                   BindingID                                                                   OPTIONAL,
    transportLayerAddress                       TransportLayerAddress                                                       OPTIONAL,
    hARQ-Process-Allocation-NonSched-2ms-EDCH    HARQ-Process-Allocation-2ms-EDCH                                           OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-MACdFlow-Specific-InformationResp-Item-ExtIEs} }
    OPTIONAL,
    ...
}

E-DCH-MACdFlow-Specific-InformationResp-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TransportBearerNotSetupIndicator    CRITICALITY ignore  EXTENSION TransportBearerNotSetupIndicator     PRESENCE optional }, -- FDD only
    ...
}

E-DCH-MACdFlow-Specific-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-Specific-InfoItem-to-Modify

E-DCH-MACdFlow-Specific-InfoItem-to-Modify ::= SEQUENCE {
    e-DCH-MACdFlow-ID                           E-DCH-MACdFlow-ID,
    allocationRetentionPriority                 AllocationRetentionPriority                                                 OPTIONAL,
    transportBearerRequestIndicator             TransportBearerRequestIndicator,
    tnlQos                                      TnlQos                                                                      OPTIONAL,
    maximum-Number-of-Retransmissions-For-E-DCH  Maximum-Number-of-Retransmissions-For-E-DCH                                OPTIONAL,
    eDCH-HARQ-PO-FDD                            E-DCH-HARQ-PO-FDD                                                           OPTIONAL,
    eDCH-MACdFlow-Multiplexing-List             E-DCH-MACdFlow-Multiplexing-List                                            OPTIONAL,
    eDCH-Grant-Type-Information                 E-DCH-Grant-Type-Information                                                OPTIONAL,
    bundlingModeIndicator                       BundlingModeIndicator                                                       OPTIONAL,
    eDCH-LogicalChannelToAdd                    E-DCH-LogicalChannelInformation                                             OPTIONAL,
    eDCH-LogicalChannelToModify                 E-DCH-LogicalChannelToModify                                                OPTIONAL,
    eDCH-LogicalChannelToDelete                 E-DCH-LogicalChannelToDelete                                                OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs} }
    OPTIONAL,
    ...
}

E-DCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-MACdFlows-to-Delete ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-to-Delete-Item

E-DCH-MACdFlow-to-Delete-Item ::= SEQUENCE {
    e-DCH-MACdFlow-ID                           E-DCH-MACdFlow-ID,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-MACdFlow-to-Delete-Item-ExtIEs} }      OPTIONAL,
    ...
}

E-DCH-MACdFlow-to-Delete-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-Non-Scheduled-Transmission-Grant-Items ::= SEQUENCE {
    -- The following IE shall be ignored if id-Ext-Max-Bits-MACe-PDU-non-scheduled is present in E-DCH-Non-Scheduled-Transmission-Grant-Items-
ExtIEs
```

```
    maxBits-MACe-PDU-non-scheduled              Max-Bits-MACe-PDU-non-scheduled,
    hARQ-Process-Allocation-NonSched-2ms        HARQ-Process-Allocation-2ms-EDCH                                                    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-Non-Scheduled-Transmission-Grant-Items-ExtIEs} }   OPTIONAL,
    ...
}

E-DCH-Non-Scheduled-Transmission-Grant-Items-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    -- The following IE shall be present if the maximum number of bits to be signalled exceeds maxNrOfBits-MACe-PDU-non-scheduled
    { ID id-Ext-Max-Bits-MACe-PDU-non-scheduled     CRITICALITY reject      EXTENSION   Ext-Max-Bits-MACe-PDU-non-scheduled    PRESENCE optional},
    ...
}

E-DCH-Non-serving-Relative-Grant-Down-Commands ::= INTEGER (0..100,...)

E-DCHProvidedBitRateValue ::= INTEGER(0..16777215,...)
-- Unit bit/s, Range 0..2^24-1, Step 1 bit

Maximum-Target-ReceivedTotalWideBandPower ::= INTEGER (0..621)
-- mapping as for RTWP measurement value, as specified in [22]

Target-NonServing-EDCH-To-Total-EDCH-Power-Ratio ::= INTEGER (0..100)
-- Unit %, Range 0..100%, Step 1%

E-DCH-RL-Indication ::= ENUMERATED {
    e-DCH,
    non-e-DCH
}


E-DCH-Serving-Cell-Change-Info-Response ::= SEQUENCE {
    e-DCH-serving-cell-choice       E-DCH-serving-cell-choice,
    iE-Extensions                   ProtocolExtensionContainer { { E-DCH-serving-cell-informationResponse-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-serving-cell-informationResponse-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-serving-cell-choice ::= CHOICE {
    e-DCH-serving-cell-change-successful        E-DCH-serving-cell-change-successful,
    e-DCH-serving-cell-change-unsuccessful      E-DCH-serving-cell-change-unsuccessful,
    ...
}

E-DCH-serving-cell-change-successful ::= SEQUENCE {
    e-DCH-RL-InformationList-Rsp            E-DCH-RL-InformationList-Rsp,
    iE-Extensions                       ProtocolExtensionContainer { { E-DCH-serving-cell-change-successful-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-RL-InformationList-Rsp ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF E-DCH-RL-InformationList-Rsp-Item

E-DCH-RL-InformationList-Rsp-Item ::= SEQUENCE {
```

```
    rl-ID                               RL-ID,
    e-DCH-FDD-DL-Control-Channel-Info   E-DCH-FDD-DL-Control-Channel-Information,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-RL-InformationList-Rsp-Item-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-serving-cell-change-successful-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-RL-InformationList-Rsp-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-serving-cell-change-unsuccessful ::= SEQUENCE {
    cause                           Cause,
    iE-Extensions                   ProtocolExtensionContainer { { E-DCH-serving-cell-change-unsuccessful-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-serving-cell-change-unsuccessful-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


E-DCH-TFCI-Table-Index ::= INTEGER (0..1,...,2..7)

E-DCH-TTI-Length ::= CHOICE {
    two-ms      DTX-Cycle-2ms-Items,
    ten-ms      DTX-Cycle-10ms-Items,
    ...
}

E-DCH-TTI-Length-to-Modify ::= CHOICE {
    two-ms      DTX-Cycle-2ms-to-Modify-Items,
    ten-ms      DTX-Cycle-10ms-to-Modify-Items,
    ...
}


E-DPCCH-PO ::= INTEGER (0..maxNrOfEDPCCH-PO-QUANTSTEPs)

E-DPDCH-PowerInterpolation ::= BOOLEAN

E-Primary-Secondary-Grant-Selector ::= ENUMERATED {
    primary,
    secondary
}

E-HICH-Signature-Sequence ::= INTEGER (0..maxNrofSigSeqRGHI-1)

End-Of-Audit-Sequence-Indicator ::= ENUMERATED {
    end-of-audit-sequence,
    not-end-of-audit-sequence
```

```
}

E-Serving-Grant-Value ::= INTEGER (0..38)

E-RGCH-2-IndexStepThreshold ::= INTEGER (0..37)

E-RGCH-3-IndexStepThreshold ::= INTEGER (0..37)

E-RGCH-E-HICH-FDD-Code-Information ::= CHOICE {
    replace                 E-RGCH-E-HICH-FDD-Code-List,
    remove                  NULL,
    ...
}

E-RGCH-E-HICH-FDD-Code-List ::= SEQUENCE (SIZE (1..maxNrOfE-RGCHs-E-HICHs)) OF FDD-DL-ChannelisationCodeNumber

E-RGCH-Release-Indicator ::= ENUMERATED {e-RGCHreleased}

E-RGCH-Signature-Sequence ::= INTEGER (0..maxNrofSigSeqRGHI-1)

E-RNTI ::= INTEGER (0..65535)

E-TFCI ::= INTEGER (0..127)

E-TFCI-BetaEC-Boost ::= INTEGER (0..127,...)


E-TFCI-Boost-Information ::= SEQUENCE {
    e-TFCI-BetaEC-Boost                     E-TFCI-BetaEC-Boost,
    uL-Delta-T2TP                           UL-Delta-T2TP           OPTIONAL,
    -- This IE shall be present if the E-TFCI BetaEC Boost IE value is not set to 127.
    iE-Extensions                           ProtocolExtensionContainer { { E-TFCI-Boost-Information-ExtIEs} }    OPTIONAL,
    ...
}

E-TFCI-Boost-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-TFCS-Information ::= SEQUENCE {
    e-DCH-TFCI-Table-Index                      E-DCH-TFCI-Table-Index,
    e-DCH-Min-Set-E-TFCI                    E-TFCI          OPTIONAL,
    reference-E-TFCI-Information            Reference-E-TFCI-Information,
    iE-Extensions                           ProtocolExtensionContainer { {E-TFCS-Information-ExtIEs} }        OPTIONAL,
    ...
}

E-TFCS-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-TFCI-Boost-Information        CRITICALITY reject      EXTENSION   E-TFCI-Boost-Information             PRESENCE optional}|
    { ID id-E-DPDCH-PowerInterpolation  CRITICALITY reject      EXTENSION   E-DPDCH-PowerInterpolation             PRESENCE optional},
    ...
}

E-TTI ::= ENUMERATED {
```

```
    e-TTI-2ms,
    e-TTI-10ms
}

E-DCHProvidedBitRate ::= SEQUENCE (SIZE (1..maxNrOfPriorityClasses)) OF E-DCHProvidedBitRate-Item

E-DCHProvidedBitRate-Item ::= SEQUENCE {
    schedulingPriorityIndicator         SchedulingPriorityIndicator,
    e-DCHProvidedBitRateValue           E-DCHProvidedBitRateValue,
    iE-Extensions                       ProtocolExtensionContainer { { E-DCHProvidedBitRate-Item-ExtIEs} }            OPTIONAL,
    ...
}

E-DCHProvidedBitRate-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-PowerOffset ::= INTEGER (0..255,...)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB

E-RGCH-PowerOffset ::= INTEGER (0..255,...)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB



E-HICH-PowerOffset ::= INTEGER (0..255,...)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB

E-HICH-TimeOffset ::= INTEGER (4..44)

E-HICH-TimeOffsetLCR ::= INTEGER (4..15)


E-DCH-Information ::= SEQUENCE {
    e-PUCH-Information                          E-PUCH-Information,
    e-TFCS-Information-TDD                      E-TFCS-Information-TDD,
    e-DCH-MACdFlows-Information-TDD             E-DCH-MACdFlows-Information-TDD,
    e-DCH-Non-Scheduled-Grant-Info              E-DCH-Non-Scheduled-Grant-Info  OPTIONAL,
    e-DCH-TDD-Information                       E-DCH-TDD-Information,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-Information-ExtIEs} }            OPTIONAL,
    ...
}

E-DCH-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-PUCH-Information  ::= SEQUENCE {
    minCR                                       CodeRate,
    maxCR                                       CodeRate,
    harqInfo                                    HARQ-Info-for-E-DCH,
```

```
    n-E-UCCH                                    N-E-UCCH,
    iE-Extensions                               ProtocolExtensionContainer { { E-PUCH-Information-ExtIEs } }          OPTIONAL,
    ...
}

E-PUCH-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-TFCS-Information-TDD  ::= SEQUENCE {
    e-DCH-QPSK-RefBetaInfo                      E-DCH-QPSK-RefBetaInfo,
    e-DCH-sixteenQAM-RefBetaInfo                E-DCH-sixteenQAM-RefBetaInfo,
    iE-Extensions                               ProtocolExtensionContainer { { E-TFCS-Information-TDD-ExtIEs } }      OPTIONAL,
    ...
}

E-TFCS-Information-TDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-QPSK-RefBetaInfo ::= SEQUENCE (SIZE (1..maxNrOfRefBetas)) OF E-DCH-RefBeta-Item

E-DCH-sixteenQAM-RefBetaInfo ::= SEQUENCE (SIZE (1..maxNrOfRefBetas)) OF E-DCH-RefBeta-Item

E-DCH-RefBeta-Item  ::= SEQUENCE {
    refCodeRate             CodeRate-short,
    refBeta                 RefBeta
}

E-DCH-MACdFlows-Information-TDD  ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-InfoTDDItem

E-DCH-MACdFlow-InfoTDDItem ::= SEQUENCE {
    e-DCH-MACdFlow-ID                           E-DCH-MACdFlow-ID,
    allocationRetentionPriority                 AllocationRetentionPriority,
    tnlQos                                      TnlQos                      OPTIONAL,
    bindingID                                   BindingID                   OPTIONAL,
    transportLayerAddress                       TransportLayerAddress       OPTIONAL,
    payloadCRC-PresenceIndicator                PayloadCRC-PresenceIndicator,
    maximum-Number-of-Retransmissions-For-E-DCH Maximum-Number-of-Retransmissions-For-E-DCH,
    eDCH-HARQ-PO-TDD                            E-DCH-HARQ-PO-TDD,
    eDCH-MACdFlow-Multiplexing-List             E-DCH-MACdFlow-Multiplexing-List                    OPTIONAL,
    eDCH-Grant-TypeTDD                          E-DCH-Grant-TypeTDD,
    eDCHLogicalChannelInformation               E-DCH-LogicalChannelInformation,
    eDCH-MACdFlow-Retransmission-Timer          E-DCH-MACdFlow-Retransmission-Timer     OPTIONAL,
    -- Mandatory for LCR TDD,Not applicable for 3.84Mcps TDD and 7.68Mcps TDD
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-MACdFlow-InfoTDDItem-ExtIEs} }          OPTIONAL,
    ...
}

E-DCH-MACdFlow-InfoTDDItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
E-DCH-MACdFlow-Retransmission-Timer ::= ENUMERATED {
    ms10, ms15, ms20, ms25, ms30, ms35, ms40, ms45, ms50, ms55, ms60, ms65,
```

```
    ms70, ms75, ms80, ms85, ms90, ms95, ms100, ms110, ms120, ms140, ms160,
    ms200, ms240, ms280, ms320, ms400, ms480, ms560,...
}


E-DCH-HARQ-PO-TDD ::= INTEGER (0..6)

E-DCH-Grant-TypeTDD ::= ENUMERATED {
    scheduled,
    non-scheduled
}
E-DCH-Non-Scheduled-Grant-Info  ::= SEQUENCE {
    timeslotResource                        E-DCH-TimeslotResource,
    powerResource                           E-DCH-PowerResource,
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tddE-PUCH-Offset                        TddE-PUCH-Offset,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-Non-Scheduled-Grant-Info-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-Non-Scheduled-Grant-Info-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TimeslotResource ::= BIT STRING (SIZE (13))

E-DCH-TimeslotResourceLCR ::= BIT STRING (SIZE (5))


E-DCH-PowerResource ::= INTEGER(1..32)

TddE-PUCH-Offset ::= INTEGER(0..255)

E-DCH-TDD-Information  ::= SEQUENCE {
    e-DCH-TDD-Maximum-Bitrate               E-DCH-TDD-Maximum-Bitrate                                   OPTIONAL,
    e-DCH-Processing-Overload-Level         E-DCH-Processing-Overload-Level                             OPTIONAL,
    e-DCH-PowerOffset-for-SchedulingInfo    E-DCH-PowerOffset-for-SchedulingInfo                        OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-TDD-Information-ExtIEs } }   OPTIONAL,
    ...
}

E-DCH-TDD-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-Maximum-Bitrate ::= INTEGER (0..9201,...)

E-DCH-Information-Response ::= SEQUENCE {
    e-DCH-TDD-MACdFlow-Specific-InformationResp     E-DCH-TDD-MACdFlow-Specific-InformationResp OPTIONAL,
    e-AGCH-Specific-Information-ResponseTDD         E-AGCH-Specific-InformationRespListTDD  OPTIONAL,
    e-RNTI                                          E-RNTI,
    scheduled-E-HICH-Specific-InformationResp       Scheduled-E-HICH-Specific-Information-ResponseLCRTDD           OPTIONAL,   -- 1.28Mcps TDD only
```

```
    iE-Extensions                                   ProtocolExtensionContainer { { E-DCH-Information-Response-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-Information-Response-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Scheduled-E-HICH-Specific-Information-ResponseLCRTDD ::= SEQUENCE (SIZE (1.. maxNrOfEHICHCodes)) OF Scheduled-E-HICH-Specific-InformationItem-
ResponseLCRTDD

Scheduled-E-HICH-Specific-InformationItem-ResponseLCRTDD ::= SEQUENCE {
    eI                              EI,
    e-HICH-ID-TDD                   E-HICH-ID-TDD,
    iE-Extensions                               ProtocolExtensionContainer  {{ Scheduled-E-HICH-Specific-InformationItem-ResponseLCRTDD-ExtIEs}}
    OPTIONAL,
    ...
}

Scheduled-E-HICH-Specific-InformationItem-ResponseLCRTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-E-HICH-ID-TDD  CRITICALITY ignore EXTENSION Extended-E-HICH-ID-TDD PRESENCE optional},
    -- Applicable to 1.28Mcps TDD only when the E-HICH identity has a value larger than 31.
    ...
}

EI ::= INTEGER (0..3)

E-HICH-ID-TDD ::= INTEGER (0..31)

E-HICH-Type ::= ENUMERATED {scheduled,non-scheduled}

E-DCH-TDD-MACdFlow-Specific-InformationResp ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-TDD-MACdFlow-Specific-InformationResp-Item

E-DCH-TDD-MACdFlow-Specific-InformationResp-Item ::= SEQUENCE {
    e-DCH-MacdFlow-Id                   E-DCH-MACdFlow-ID,
    bindingID                           BindingID                   OPTIONAL,
    transportLayerAddress               TransportLayerAddress       OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { E-DCH-TDD-MACdFlow-Specific-InformationRespItem-ExtIEs } }
    OPTIONAL,
    ...
}

E-DCH-TDD-MACdFlow-Specific-InformationRespItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-Specific-InformationRespListTDD ::= SEQUENCE (SIZE (1..maxNrOfEAGCHCodes)) OF E-AGCH-Specific-InformationResp-ItemTDD

E-AGCH-Specific-InformationResp-ItemTDD ::= SEQUENCE {
    e-AGCH-Id                           E-AGCH-Id,
    iE-Extensions                       ProtocolExtensionContainer { { E-AGCH-Specific-InformationResp-ItemTDD-ExtIEs } }   OPTIONAL,
    ...
}
```

```
E-AGCH-Specific-InformationResp-ItemTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-Id ::= INTEGER (0..31,...,32..255)

E-DCH-Information-Reconfig ::= SEQUENCE {
    e-PUCH-Information                      E-PUCH-Information                                                   OPTIONAL,
    e-TFCS-Information-TDD                  E-TFCS-Information-TDD                                               OPTIONAL,
    e-DCH-MACdFlows-to-Add                  E-DCH-MACdFlows-Information-TDD                                      OPTIONAL,
    e-DCH-MACdFlows-to-Delete               E-DCH-MACdFlows-to-Delete                                            OPTIONAL,
    e-DCH-Non-Scheduled-Grant-Info          E-DCH-Non-Scheduled-Grant-Info                                       OPTIONAL,
    e-DCH-TDD-Information                   E-DCH-TDD-Information                                                OPTIONAL,
    e-DCH-TDD-Information-to-Modify         E-DCH-TDD-Information-to-Modify                                      OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-Information-Reconfig-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-Information-Reconfig-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-Information-to-Modify ::= SEQUENCE {
    e-DCH-TDD-Information-to-Modify-List    E-DCH-TDD-Information-to-Modify-List    OPTIONAL,
    mACeReset-Indicator                     MACeReset-Indicator                     OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-TDD-Information-to-Modify-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-TDD-Information-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-Information-to-Modify-List ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-ModifyTDDItem

E-DCH-MACdFlow-ModifyTDDItem ::= SEQUENCE {
    e-DCH-MACdFlow-ID                           E-DCH-MACdFlow-ID,
    allocationRetentionPriority                 AllocationRetentionPriority     OPTIONAL,
    transportBearerRequestIndicator             TransportBearerRequestIndicator,
    bindingID                                   BindingID                   OPTIONAL,
    transportLayerAddress                       TransportLayerAddress       OPTIONAL,
    tnlQos                                      TnlQos                      OPTIONAL,
    maximum-Number-of-Retransmissions-For-E-DCH Maximum-Number-of-Retransmissions-For-E-DCH                 OPTIONAL,
    eDCH-HARQ-PO-TDD                            E-DCH-HARQ-PO-TDD                               OPTIONAL,
    eDCH-MACdFlow-Multiplexing-List             E-DCH-MACdFlow-Multiplexing-List                OPTIONAL,
    eDCH-Grant-TypeTDD                          E-DCH-Grant-TypeTDD                             OPTIONAL,
    e-DCH-LogicalChannelToAdd                   E-DCH-LogicalChannelInformation                             OPTIONAL,
    e-DCH-LogicalChannelToModify                E-DCH-LogicalChannelToModify                                OPTIONAL,
    e-DCH-LogicalChannelToDelete                E-DCH-LogicalChannelToDelete                                OPTIONAL,
    eDCH-MACdFlow-Retransmission-Timer          E-DCH-MACdFlow-Retransmission-Timer                         OPTIONAL,
    -- LCR TDD only
    iE-Extensions                               ProtocolExtensionContainer { {E-DCH-MACdFlow-ModifyTDDItem-ExtIEs } }OPTIONAL,
    ...
}
```

```
E-DCH-MACdFlow-ModifyTDDItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Maximum-Generated-ReceivedTotalWideBandPowerInOtherCells ::= INTEGER (0..621)
-- mapping as for RTWP measurement value, as specified in [23]

E-DCH-768-Information ::= SEQUENCE {
    e-PUCH-Information                          E-PUCH-Information,
    e-TFCS-Information-TDD                      E-TFCS-Information-TDD,
    e-DCH-MACdFlows-Information-TDD             E-DCH-MACdFlows-Information-TDD,
    e-DCH-Non-Scheduled-Grant-Info768           E-DCH-Non-Scheduled-Grant-Info768   OPTIONAL,
    e-DCH-TDD-Information768                    E-DCH-TDD-Information768,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-768-Information-ExtIEs} }        OPTIONAL,
    ...
}

E-DCH-768-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-Non-Scheduled-Grant-Info768  ::= SEQUENCE {
    timeslotResource                            E-DCH-TimeslotResource,
    powerResource                               E-DCH-PowerResource,
    repetitionPeriod                            RepetitionPeriod,
    repetitionLength                            RepetitionLength,
    tddE-PUCH-Offset                            TddE-PUCH-Offset,
    tdd-ChannelisationCode768                   TDD-ChannelisationCode768,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-Non-Scheduled-Grant-Info768-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-Non-Scheduled-Grant-Info768-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-Information768  ::= SEQUENCE {
    e-DCH-TDD-Maximum-Bitrate768                E-DCH-TDD-Maximum-Bitrate768                                  OPTIONAL,
    e-DCH-Processing-Overload-Level             E-DCH-Processing-Overload-Level                               OPTIONAL,
    e-DCH-PowerOffset-for-SchedulingInfo        E-DCH-PowerOffset-for-SchedulingInfo                          OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-TDD-Information768-ExtIEs } }   OPTIONAL,
    ...
}

E-DCH-TDD-Information768-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-Maximum-Bitrate768 ::= INTEGER (0..17713,...)

E-DCH-768-Information-Reconfig ::= SEQUENCE {
    e-PUCH-Information                          E-PUCH-Information                                             OPTIONAL,
    e-TFCS-Information-TDD                      E-TFCS-Information-TDD                                         OPTIONAL,
```

```
    e-DCH-MACdFlows-to-Add                  E-DCH-MACdFlows-Information-TDD                                  OPTIONAL,
    e-DCH-MACdFlows-to-Delete               E-DCH-MACdFlows-to-Delete                                        OPTIONAL,
    e-DCH-Non-Scheduled-Grant-Info768       E-DCH-Non-Scheduled-Grant-Info768                                   OPTIONAL,
    e-DCH-TDD-Information768                E-DCH-TDD-Information768                                         OPTIONAL,
    e-DCH-TDD-Information-to-Modify         E-DCH-TDD-Information-to-Modify                                  OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-768-Information-Reconfig-ExtIEs} }  OPTIONAL,
    ...
}

E-DCH-768-Information-Reconfig-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-LCR-Information ::= SEQUENCE {
    e-PUCH-LCR-Information                  E-PUCH-LCR-Information,
    e-TFCS-Information-TDD                  E-TFCS-Information-TDD,
    e-DCH-MACdFlows-Information-TDD         E-DCH-MACdFlows-Information-TDD,
    e-DCH-Non-Scheduled-Grant-LCR-Info      E-DCH-Non-Scheduled-Grant-LCR-Info  OPTIONAL,
    e-DCH-LCRTDD-Information                E-DCH-LCRTDD-Information,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-LCR-Information-ExtIEs} }        OPTIONAL,
    ...
}

E-DCH-LCR-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-PUCH-LCR-Information ::= SEQUENCE {
    minCR                                   CodeRate,
    maxCR                                   CodeRate,
    harqInfo                                HARQ-Info-for-E-DCH,
    pRXdes-base                             PRXdes-base,
    e-PUCH-TPC-StepSize                     TDD-TPC-UplinkStepSize-LCR,
    e-AGCH-TPC-StepSize                     TDD-TPC-DownlinkStepSize,
    iE-Extensions                           ProtocolExtensionContainer { { E-PUCH-LCR-Information-ExtIEs } }      OPTIONAL,
    ...
}

E-PUCH-LCR-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-Non-Scheduled-Grant-LCR-Info ::= SEQUENCE {
    timeslotResourceLCR                     E-DCH-TimeslotResourceLCR,
    powerResource                           E-DCH-PowerResource,
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    subframeNumber                          ENUMERATED {v0, v1},
    tddE-PUCH-Offset                        TddE-PUCH-Offset,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    n-E-UCCHLCR                             N-E-UCCHLCR,
    e-HICH-LCR-Information                  E-HICH-LCR-Information,
    iE-Extensions                           ProtocolExtensionContainer { { E-DCH-Non-Scheduled-Grant-LCR-Info-ExtIEs } }   OPTIONAL,
    ...
```

```
}

E-DCH-Non-Scheduled-Grant-LCR-Info-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-HICH-LCR-Information   ::= SEQUENCE {
    e-HICH-ID-TDD                       E-HICH-ID-TDD,
    signatureSequenceGroupIndex             SignatureSequenceGroupIndex,
    iE-Extensions                           ProtocolExtensionContainer { { E-HICH-LCR-Information-ExtIEs} }       OPTIONAL,
    ...
}

E-HICH-LCR-Information-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-E-HICH-ID-TDD      CRITICALITY ignore  EXTENSION Extended-E-HICH-ID-TDD    PRESENCE optional},
    -- Applicable to 1.28Mcps TDD only when the E-HICH identity has a value larger than 31.
    ...
}

E-DCH-LCRTDD-Information ::= SEQUENCE {
    e-DCH-LCRTDD-PhysicalLayerCategory          E-DCH-LCRTDD-PhysicalLayerCategory                                  OPTIONAL,
    e-DCH-Processing-Overload-Level             E-DCH-Processing-Overload-Level                                     OPTIONAL,
    e-DCH-PowerOffset-for-SchedulingInfo        E-DCH-PowerOffset-for-SchedulingInfo                                OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-LCRTDD-Information-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-LCRTDD-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-E-DCH-LCRTDD-PhysicalLayerCategory     CRITICALITY reject      EXTENSION Extended-E-DCH-LCRTDD-PhysicalLayerCategory
    PRESENCE optional },
    -- This IE shall be used if the E-DCH Physical Layer Category has a value larger than 5.
    ...
}

E-DCH-LCRTDD-PhysicalLayerCategory ::= INTEGER(1..5)


E-DCH-LCR-Information-Reconfig ::= SEQUENCE {
    e-PUCH-LCR-Information                       E-PUCH-LCR-Information                                              OPTIONAL,
    e-TFCS-Information-TDD                      E-TFCS-Information-TDD                                              OPTIONAL,
    e-DCH-MACdFlows-to-Add                      E-DCH-MACdFlows-Information-TDD                                     OPTIONAL,
    e-DCH-MACdFlows-to-Delete                   E-DCH-MACdFlows-to-Delete                                           OPTIONAL,
    e-DCH-Non-Scheduled-Grant-LCR-Info          E-DCH-Non-Scheduled-Grant-LCR-Info                                  OPTIONAL,
    e-DCH-LCRTDD-Information                    E-DCH-LCRTDD-Information                                            OPTIONAL,
    e-DCH-TDD-Information-to-Modify             E-DCH-TDD-Information-to-Modify                                     OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-LCR-Information-Reconfig-ExtIEs} }  OPTIONAL,
    ...
}

E-DCH-LCR-Information-Reconfig-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
Enabling-Delay ::= ENUMERATED {v0, v1, v2, v4, v8, v16, v32, v64, v128}
    -- Unit of radio frames

Enhanced-FACH-Capability ::= ENUMERATED {
    enhanced-FACH-capable,
    enhanced-FACH-non-capable
}

Enhanced-PCH-Capability ::= ENUMERATED {
    enhanced-PCH-capable,
    enhanced-PCH-non-capable
}

Extended-E-DCH-LCRTDD-PhysicalLayerCategory ::= INTEGER(6,...)

Ext-Max-Bits-MACe-PDU-non-scheduled ::= INTEGER(19983..22978,...)

Ext-Reference-E-TFCI-PO ::= INTEGER(30..31,...)

ExtendedPropagationDelay ::= INTEGER(255..1023)

Extended-RNC-ID                 ::= INTEGER (4096..65535)

Extended-Round-Trip-Time-Value ::= INTEGER(32767..103041)
-- See also mapping in [22]

Extended-HS-SCCH-ID                ::= INTEGER (32..255)

Extended-HS-SICH-ID                ::= INTEGER (32..255)

Extended-E-HICH-ID-TDD             ::= INTEGER (32..255)

-- ========================================
--  F
-- ========================================

FACH-Measurement-Occasion-Cycle-Length-Coefficient ::= INTEGER(1..12)

Fast-Reconfiguration-Mode ::= ENUMERATED {fast,...}
Fast-Reconfiguration-Permission ::= ENUMERATED {allowed,...}

FDD-DL-ChannelisationCodeNumber ::= INTEGER(0.. 511)
-- According to the mapping in [9]. The maximum value is equal to the DL spreading factor -1--

FDD-DL-CodeInformation ::= SEQUENCE (SIZE (1..maxNrOfCodes)) OF FDD-DL-CodeInformationItem

FDD-DL-CodeInformationItem ::= SEQUENCE {
    dl-ScramblingCode                       DL-ScramblingCode,
    fdd-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    transmissionGapPatternSequenceCodeInformation       TransmissionGapPatternSequenceCodeInformation               OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { FDD-DL-CodeInformationItem-ExtIEs} }     OPTIONAL,
    ...
}
```

```
FDD-DL-CodeInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FDD-S-CCPCH-FrameOffset ::= ENUMERATED {
    v1, v2, v4, ...
}

FDD-S-CCPCH-Offset ::= INTEGER (0..149)
-- 0: 0 chip, 1: 256 chip, 2: 512 chip, .. ,149: 38144 chip [7] --

FDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size0-5,
    step-size1,
    step-size1-5,
    step-size2,
    ...
}

F-DPCH-Capability ::= ENUMERATED {
    f-DPCH-capable,
    f-DPCH-non-capable
}

F-DPCH-SlotFormat ::= INTEGER (0..9)


F-DPCH-SlotFormatCapability ::= ENUMERATED {
    f-DPCH-slot-format-capable,
    f-DPCH-slot-format-non-capable
}


FirstRLS-Indicator ::= ENUMERATED {
    first-RLS,
    not-first-RLS,
    ...
}

FNReportingIndicator ::= ENUMERATED {
 fN-reporting-required,
 fN-reporting-not-required
}

FrameHandlingPriority ::= INTEGER (0..15)
-- 0=lowest priority, 15=highest priority --

FrameAdjustmentValue ::= INTEGER(0..4095)

FrameOffset ::= INTEGER (0..255)

FPACH-Power ::= INTEGER (-150..400,...) -- FPACH-power = power * 10
-- If power <= -15 FPACH shall be set to -150
-- If power >= 40 FPACH shall be set to 400
```

```
-- Unit dBm, Range -15dBm .. +40 dBm, Step +0.1dB

-- ========================================
--  G
-- ========================================
GANSS-Almanac ::= SEQUENCE{
    ganss-wk-number                     INTEGER(0..255),
    gANSS-AlmanacModel                  GANSS-AlmanacModel,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-Almanac-ExtIEs } }                 OPTIONAL,
    ...
}

GANSS-Almanac-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


GANSS-AlmanacModel ::= CHOICE {
    gANSS-keplerianParameters           GANSS-KeplerianParametersAlm,
    ...
}

GANSS-Clock-Model ::= SEQUENCE (SIZE (1..maxGANSSClockMod)) OF GANSS-SatelliteClockModelItem

GANSS-Common-Data ::= SEQUENCE {
    ganss-Ionospheric-Model             GANSS-Ionospheric-Model                                                 OPTIONAL,
    ganss-Rx-Pos                        GANSS-RX-Pos                                                            OPTIONAL,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-Common-Data-ExtIEs } }             OPTIONAL,
    ...
}

GANSS-Common-Data-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-CommonDataInfoReq ::= SEQUENCE {
    ionospheric-Model                   BOOLEAN                                                                 OPTIONAL,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-CommonDataInfoReq-ExtIEs } }       OPTIONAL,
    ...
}


GANSS-CommonDataInfoReq-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Data-Bit-Assistance ::= SEQUENCE {
    ganssTod                            INTEGER (0..59,...),
    dataBitAssistancelist               GANSS-DataBitAssistanceList,
```

```
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-Data-Bit-Assistance-ExtIEs } }        OPTIONAL,
    ...
}


GANSS-Data-Bit-Assistance-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-DataBitAssistanceList ::= SEQUENCE (SIZE (1..maxGANSSSat)) OF GANSS-DataBitAssistanceItem

GANSS-DataBitAssistanceItem ::= SEQUENCE {
    satId                           INTEGER(0..63),
    dataBitAssistanceSgnList        GANSS-DataBitAssistanceSgnList,
    ie-Extensions                   ProtocolExtensionContainer { { GANSS-DataBitAssistanceItem-ExtIEs } }          OPTIONAL,
    ...
}

GANSS-DataBitAssistanceItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-DataBitAssistanceSgnList ::= SEQUENCE (SIZE (1..maxSgnType)) OF GANSS-DataBitAssistanceSgnItem



GANSS-DataBitAssistanceSgnItem ::= SEQUENCE {
    ganss-SignalId          GANSS-Signal-ID,
    ganssDataBits           BIT STRING (SIZE (1..1024)),
    ie-Extensions           ProtocolExtensionContainer { { GANSS-DataBitAssistanceSgnItem-ExtIEs } }               OPTIONAL,
    ...
}

GANSS-DataBitAssistanceSgnItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Data-Bit-Assistance-ReqItem ::= SEQUENCE {
    ganssTod                                INTEGER (0..86399),
    ganss-Data-Bit-Assistance-ReqList       GANSS-Data-Bit-Assistance-ReqList,
    iE-Extensions                           ProtocolExtensionContainer { { GANSS-Data-Bit-Assistance-ReqItem-ExtIEs } }  OPTIONAL,
    ...
}

GANSS-Data-Bit-Assistance-ReqItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Data-Bit-Assistance-ReqList ::= SEQUENCE (SIZE (1..maxSgnType)) OF SEQUENCE {
    ganssDataBitAssistance              BOOLEAN,
    iE-Extensions                       ProtocolExtensionContainer { { GANSS-Data-Bit-Assistance-ReqList-ExtIEs } }      OPTIONAL,
    ...
}
```

```
GANSS-Data-Bit-Assistance-ReqList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-GenericDataInfoReqList ::= SEQUENCE (SIZE(1..maxNoGANSS)) OF GANSS-GenericDataInfoReqItem

GANSS-GenericDataInfoReqItem ::= SEQUENCE {
    ganss-Id                                    GANSS-ID                                                        OPTIONAL,
    ganss-Navigation-Model-And-Time-Recovery    BOOLEAN                                                         OPTIONAL,
    ganss-Time-Model-GNSS-GNSS                  BIT STRING (SIZE (9))                                           OPTIONAL,
    ganss-UTC-Model                             BOOLEAN                                                         OPTIONAL,
    ganss-Almanac                               BOOLEAN                                                         OPTIONAL,
    ganss-Real-Time-Integrity                   BOOLEAN                                                         OPTIONAL,
    ganss-Data-Bit-Assistance-Req               GANSS-Data-Bit-Assistance-ReqItem                               OPTIONAL,
    ie-Extensions                               ProtocolExtensionContainer { { GANSS-GenericDataInfoReqItem-ExtIEs } }   OPTIONAL,
    ...
}

GANSS-GenericDataInfoReqItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Generic-Data ::= SEQUENCE (SIZE(1..maxNoGANSS)) OF GANSS-Generic-DataItem

GANSS-Generic-DataItem ::= SEQUENCE {
    ganss-Id                                    GANSS-ID                                                        OPTIONAL,
    dganss-Correction                           DGANSSCorrections                                               OPTIONAL,
    ganss-Navigation-Model-And-Time-Recovery    GANSS-Navigation-Model-And-Time-Recovery                        OPTIONAL,
    ganss-Time-Model                            GANSS-Time-Model                                                OPTIONAL,
    ganss-UTC-TIME                              GANSS-UTC-Model                                                 OPTIONAL,
    ganss-Almanac                               GANSS-Almanac                                                   OPTIONAL,
    ganss-Real-Time-Integrity                   GANSS-Real-Time-Integrity                                       OPTIONAL,
    ganss-Data-Bit-Assistance                   GANSS-Data-Bit-Assistance                                       OPTIONAL,
    ie-Extensions                               ProtocolExtensionContainer { { GANSS-Generic-DataItem-ExtIEs } }    OPTIONAL,
    ...
}

GANSS-Generic-DataItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-ID ::= INTEGER(0..7,...)


GANSS-Information ::= SEQUENCE {
    gANSS-CommonDataInfoReq             GANSS-CommonDataInfoReq                                     OPTIONAL,
    gANSS-GenericDataInfoReqList        GANSS-GenericDataInfoReqList                                OPTIONAL,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-Information-ExtIEs } }  OPTIONAL,
    ...
}
```

```
GANSS-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Ionospheric-Model ::= SEQUENCE {
    alpha-zero-ionos                    BIT STRING (SIZE (12)),
    alpha-one-ionos                     BIT STRING (SIZE (12)),
    alpha-two-ionos                     BIT STRING (SIZE (12)),
    gANSS-IonosphereRegionalStormFlags  GANSS-IonosphereRegionalStormFlags                                  OPTIONAL,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-Ionospheric-Model-ExtIEs } }   OPTIONAL,
    ...
}


GANSS-Ionospheric-Model-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-IonosphereRegionalStormFlags ::= SEQUENCE {
    storm-flag-one                      BOOLEAN,
    storm-flag-two                      BOOLEAN,
    storm-flag-three                    BOOLEAN,
    storm-flag-four                     BOOLEAN,
    storm-flag-five                     BOOLEAN,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-IonosphereRegionalStormFlags-ExtIEs } } OPTIONAL,
    ...
}


GANSS-IonosphereRegionalStormFlags-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-KeplerianParametersAlm ::= SEQUENCE {
    t-oa                                INTEGER(0..255),
    iod-a                               INTEGER(0..3),
    gANSS-SatelliteInformationKP        GANSS-SatelliteInformationKP,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-KeplerianParametersAlm-ExtIEs } }      OPTIONAL,
    ...
}

GANSS-KeplerianParametersAlm-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-KeplerianParametersOrb ::= SEQUENCE {
    toe-lsb-nav                         INTEGER (0..511),
    ganss-omega-nav                     BIT STRING (SIZE (32)),
    delta-n-nav                         BIT STRING (SIZE (16)),
    m-zero-nav                          BIT STRING (SIZE (32)),
    omegadot-nav                        BIT STRING (SIZE (24)),
```

```
    ganss-e-lsb-nav                     INTEGER(0..33554431),
    idot-nav                            BIT STRING (SIZE (14)),
    a-sqrt-lsb-nav                      INTEGER(0..67108863),
    i-zero-nav                          BIT STRING (SIZE (32)),
    omega-zero-nav                      BIT STRING (SIZE (32)),
    c-rs-nav                            BIT STRING (SIZE (16)),
    c-is-nav                            BIT STRING (SIZE (16)),
    c-us-nav                            BIT STRING (SIZE (16)),
    c-rc-nav                            BIT STRING (SIZE (16)),
    c-ic-nav                            BIT STRING (SIZE (16)),
    c-uc-nav                            BIT STRING (SIZE (16)),
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-KeplerianParametersOrb-ExtIEs } }        OPTIONAL,
    ...
}

GANSS-KeplerianParametersOrb-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Navigation-Model-And-Time-Recovery ::= SEQUENCE {
    ganss-Transmission-Time     GANSS-Transmission-Time,
    non-broadcastIndication     ENUMERATED{true}        OPTIONAL,
-- The three following IEs shall be present if the GANSS Orbit Model IE indicates 'Keplerian Parameters'
    toe-c-msb                   INTEGER(0..31)          OPTIONAL,
    e-msb                       INTEGER(0..127)         OPTIONAL,
    sqrtA-msb                   INTEGER(0..63)          OPTIONAL,
    ganssSatInfoNav             GANSS-Sat-Info-Nav,
    ie-Extensions               ProtocolExtensionContainer { { GANSS-Navigation-Model-And-Time-Recovery-ExtIEs } } OPTIONAL,
    ...
}

GANSS-Navigation-Model-And-Time-Recovery-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Orbit-Model ::= CHOICE {
    gANSS-keplerianParameters           GANSS-KeplerianParametersOrb,
    ...
}

GANSS-Real-Time-Integrity ::= SEQUENCE (SIZE (1..maxGANSSSat)) OF GANSS-RealTimeInformationItem

GANSS-RealTimeInformationItem ::= SEQUENCE {
    bad-ganss-satId                     INTEGER(0..63),
    bad-ganss-signalId                  BIT STRING(SIZE(8))                                                 OPTIONAL,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-RealTimeInformationItem-ExtIEs } }     OPTIONAL,
    ...
```

```
}

GANSS-RealTimeInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-RX-Pos ::= SEQUENCE {
    latitudeSign                        ENUMERATED{north,south},
    degreesOfLatitude                   INTEGER(0..2147483647),
    degreesOfLongitude                  INTEGER(-2147483648..2147483647),
    directionOfAltitude                 ENUMERATED{height,depth},
    altitude                            INTEGER(0..32767),
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-RX-Pos-ExtIEs } }  OPTIONAL,
    ...
}

GANSS-RX-Pos-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-SatelliteClockModelItem ::= SEQUENCE {
    t-oc-lsb                            INTEGER(0..511),
    a-i2                                BIT STRING (SIZE (12)),
    a-i1                                BIT STRING (SIZE (18)),
    a-i0                                BIT STRING (SIZE (28)),
    t-gd                                BIT STRING (SIZE (10))                                          OPTIONAL,
    model-id                            INTEGER(0..1,...)                                               OPTIONAL,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-SatelliteClockModelItem-ExtIEs } }     OPTIONAL,
    ...
}

GANSS-SatelliteClockModelItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-SatelliteInformationKP ::= SEQUENCE (SIZE (1..maxGANSSSatAlmanac)) OF GANSS-SatelliteInformationKPItem

GANSS-SatelliteInformationKPItem ::= SEQUENCE {
    satId                               INTEGER(0..63),
    ganss-e-alm                         BIT STRING (SIZE (11)),
    ganss-delta-I-alm                   BIT STRING (SIZE (11)),
    ganss-omegadot-alm                  BIT STRING (SIZE (11)),
    ganss-svhealth-alm                  BIT STRING (SIZE (4)),
    ganss-delta-a-sqrt-alm              BIT STRING (SIZE (17)),
    ganss-omegazero-alm                 BIT STRING (SIZE (16)),
    ganss-m-zero-alm                    BIT STRING (SIZE (16)),
    ganss-omega-alm                     BIT STRING (SIZE (16)),
```

```
    ganss-af-zero-alm                   BIT STRING (SIZE (14)),
    ganss-af-one-alm                    BIT STRING (SIZE (11)),
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-SatelliteInformationKPItem-ExtIEs } }  OPTIONAL,
    ...
}

GANSS-SatelliteInformationKPItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Sat-Info-Nav ::= SEQUENCE (SIZE(1..maxGANSSSat)) OF SEQUENCE {
    satId                       INTEGER(0..63),
    svHealth                    BIT STRING (SIZE(5)),
    iod                         BIT STRING (SIZE(10)),
    ganssClockModel             GANSS-Clock-Model,
    ganssOrbitModel             GANSS-Orbit-Model,
    ie-Extensions               ProtocolExtensionContainer { { GANSS-Sat-Info-Nav-ExtIEs } } OPTIONAL,
    ...
}

GANSS-Sat-Info-Nav-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Signal-ID ::= INTEGER(0..7,...)

GANSS-StatusHealth ::= ENUMERATED {
   udre-scale-1dot0,
   udre-scale-0dot75,
   udre-scale-0dot5,
   udre-scale-0dot3,
   udre-scale-0dot2,
   udre-scale-0dot1,
   no-data,
   invalid-data
}

GANSS-Time-Model ::= SEQUENCE {
    ganss-time-model-Ref-Time                   INTEGER(0..37799),
    ganss-t-a0                          INTEGER(-2147483648.. 2147483647),
    ganss-t-a1                          INTEGER(-8388608.. 8388607)                                     OPTIONAL,
    ganss-t-a2                          INTEGER(-64..63)                                                OPTIONAL,
    gnss-to-id                          ENUMERATED{gps,...},
    ganss-wk-number                     INTEGER(0..8191)                                                OPTIONAL,
    ie-Extensions                       ProtocolExtensionContainer { { GANSS-Time-Model-ExtIEs } }      OPTIONAL,
    ...
}

GANSS-Time-Model-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

GANSS-Transmission-Time ::= SEQUENCE {
    ganssDay                    INTEGER(0..8191)                                                    OPTIONAL,
    ganssTod                    INTEGER(0..86399),
    ie-Extensions               ProtocolExtensionContainer { { GANSS-Transmission-Time-ExtIEs } }   OPTIONAL,
    ...
}


GANSS-Transmission-Time-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-UTC-Model ::= SEQUENCE {
    a-one-utc                       BIT STRING (SIZE (24)),
    a-zero-utc                      BIT STRING (SIZE (32)),
    t-ot-utc                        BIT STRING (SIZE (8)),
    w-n-t-utc                       BIT STRING (SIZE (8)),
    delta-t-ls-utc                  BIT STRING (SIZE (8)),
    w-n-lsf-utc                     BIT STRING (SIZE (8)),
    dn-utc                          BIT STRING (SIZE (8)),
    delta-t-lsf-utc                 BIT STRING (SIZE (8)),
    ie-Extensions                   ProtocolExtensionContainer { { GANSS-UTC-Model-ExtIEs } }   OPTIONAL,
    ...
}

GANSS-UTC-Model-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


GapLength               ::= INTEGER (1..14)
-- Unit slot

GapDuration             ::= INTEGER (1..144,...)
-- Unit frame

GenericTrafficCategory  ::= BIT STRING (SIZE (8))

GPS-Almanac ::= SEQUENCE {
    wna-alm             BIT STRING (SIZE (8)),
    sat-info-almanac    SAT-Info-Almanac,
    sVGlobalHealth-alm  BIT STRING (SIZE (364)) OPTIONAL,
    ie-Extensions       ProtocolExtensionContainer { { GPS-Almanac-ExtIEs} }    OPTIONAL,
    ...
}
```

```
GPS-Almanac-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-SAT-Info-Almanac-ExtItem    CRITICALITY ignore      EXTENSION   SAT-Info-Almanac-ExtList       PRESENCE optional},
    ...
}

GPS-Ionospheric-Model ::= SEQUENCE {
   alpha-zero-ionos      BIT STRING (SIZE (8)),
   alpha-one-ionos       BIT STRING (SIZE (8)),
   alpha-two-ionos       BIT STRING (SIZE (8)),
   alpha-three-ionos     BIT STRING (SIZE (8)),
   beta-zero-ionos       BIT STRING (SIZE (8)),
   beta-one-ionos        BIT STRING (SIZE (8)),
   beta-two-ionos        BIT STRING (SIZE (8)),
   beta-three-ionos      BIT STRING (SIZE (8)),
   ie-Extensions         ProtocolExtensionContainer { { GPS-Ionospheric-Model-ExtIEs} }     OPTIONAL,
   ...
}

GPS-Ionospheric-Model-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GPS-Information ::= SEQUENCE (SIZE (0..maxNoGPSItems)) OF GPS-Information-Item
-- This IE shall be present if the Information Type Item IE indicates "GPS Information"

GPS-Information-Item ::= ENUMERATED {
   gps-navigation-model-and-time-recovery,
   gps-ionospheric-model,
   gps-utc-model,
   gps-almanac,
   gps-rt-integrity,
   ...
}

GPS-RealTime-Integrity ::= CHOICE {
    bad-satellites              GPSBadSat-Info-RealTime-Integrity,
    no-bad-satellites           NULL
}

GPSBadSat-Info-RealTime-Integrity ::= SEQUENCE {
    sat-info                        SATInfo-RealTime-Integrity,
    ie-Extensions                   ProtocolExtensionContainer { { GPSBadSat-Info-RealTime-Integrity-ExtIEs} }        OPTIONAL,
    ...
}

GPSBadSat-Info-RealTime-Integrity-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

GPS-NavigationModel-and-TimeRecovery ::= SEQUENCE (SIZE (1..maxNoSat)) OF GPS-NavandRecovery-Item

GPS-NavandRecovery-Item ::= SEQUENCE {
  tx-tow-nav                        INTEGER (0..1048575),
  sat-id-nav                        SAT-ID,
  tlm-message-nav                   BIT STRING (SIZE (14)),
  tlm-revd-c-nav                    BIT STRING (SIZE (2)),
  ho-word-nav                       BIT STRING (SIZE (22)),
  w-n-nav                           BIT STRING (SIZE (10)),
  ca-or-p-on-l2-nav                 BIT STRING (SIZE (2)),
  user-range-accuracy-index-nav     BIT STRING (SIZE (4)),
  sv-health-nav                     BIT STRING (SIZE (6)),
  iodc-nav                          BIT STRING (SIZE (10)),
  l2-p-dataflag-nav                 BIT STRING (SIZE (1)),
  sf1-reserved-nav                  BIT STRING (SIZE (87)),
  t-gd-nav                          BIT STRING (SIZE (8)),
  t-oc-nav                          BIT STRING (SIZE (16)),
  a-f-2-nav                         BIT STRING (SIZE (8)),
  a-f-1-nav                         BIT STRING (SIZE (16)),
  a-f-zero-nav                      BIT STRING (SIZE (22)),
  c-rs-nav                          BIT STRING (SIZE (16)),
  delta-n-nav                       BIT STRING (SIZE (16)),
  m-zero-nav                        BIT STRING (SIZE (32)),
  c-uc-nav                          BIT STRING (SIZE (16)),
  gps-e-nav                         BIT STRING (SIZE (32)),
  c-us-nav                          BIT STRING (SIZE (16)),
  a-sqrt-nav                        BIT STRING (SIZE (32)),
  t-oe-nav                          BIT STRING (SIZE (16)),
  fit-interval-flag-nav             BIT STRING (SIZE (1)),
  aodo-nav                          BIT STRING (SIZE (5)),
  c-ic-nav                          BIT STRING (SIZE (16)),
  omega-zero-nav                    BIT STRING (SIZE (32)),
  c-is-nav                          BIT STRING (SIZE (16)),
  i-zero-nav                        BIT STRING (SIZE (32)),
  c-rc-nav                          BIT STRING (SIZE (16)),
  gps-omega-nav                     BIT STRING (SIZE (32)),
  omegadot-nav                      BIT STRING (SIZE (24)),
  idot-nav                          BIT STRING (SIZE (14)),
  spare-zero-fill                   BIT STRING (SIZE (20)),
  ie-Extensions                     ProtocolExtensionContainer { { GPS-NavandRecovery-Item-ExtIEs} }                    OPTIONAL,
   ...
}

GPS-NavandRecovery-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


GPS-RX-POS ::= SEQUENCE {
    latitudeSign            ENUMERATED {north, south},
```

```
    latitude                INTEGER (0..8388607),
    longitude               INTEGER (-8388608..8388607),
    directionOfAltitude     ENUMERATED {height, depth},
    altitude                INTEGER (0..32767),
    iE-Extensions           ProtocolExtensionContainer { { GPS-RX-POS-ExtIEs} } OPTIONAL,
    ...
}

GPS-RX-POS-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GPS-Status-Health ::= ENUMERATED {
   udre-scale-1dot0,
   udre-scale-0dot75,
   udre-scale-0dot5,
   udre-scale-0dot3,
   udre-scale-0dot1,
   no-data,
   invalid-data
}

GPSTOW ::= INTEGER (0..604799)

GPS-UTC-Model ::= SEQUENCE {
   a-one-utc             BIT STRING (SIZE (24)),
   a-zero-utc            BIT STRING (SIZE (32)),
   t-ot-utc              BIT STRING (SIZE (8)),
   delta-t-ls-utc        BIT STRING (SIZE (8)),
   w-n-t-utc             BIT STRING (SIZE (8)),
   w-n-lsf-utc           BIT STRING (SIZE (8)),
   dn-utc                BIT STRING (SIZE (8)),
   delta-t-lsf-utc       BIT STRING (SIZE (8)),
   ie-Extensions         ProtocolExtensionContainer { { GPS-UTC-Model-ExtIEs} }     OPTIONAL,
   ...
}

GPS-UTC-Model-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ==========================================
--  H
-- ==========================================

HARQ-Info-for-E-DCH ::= ENUMERATED {
    rv0,
    rvtable
}

HARQ-MemoryPartitioning ::= CHOICE {
```

```
    implicit        HARQ-MemoryPartitioning-Implicit,
    explicit        HARQ-MemoryPartitioning-Explicit,
    ...
    }

HARQ-MemoryPartitioning-Implicit    ::= SEQUENCE {
    number-of-Processes         INTEGER (1..8,...,12|14|16),
    iE-Extensions               ProtocolExtensionContainer { { HARQ-MemoryPartitioning-Implicit-ExtIEs } }      OPTIONAL,
    ...
}

HARQ-MemoryPartitioning-Implicit-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HARQ-MemoryPartitioning-Explicit    ::= SEQUENCE {
    hARQ-MemoryPartitioningList         HARQ-MemoryPartitioningList,
    iE-Extensions                       ProtocolExtensionContainer { { HARQ-MemoryPartitioning-Explicit-ExtIEs } }       OPTIONAL,
    ...
}

HARQ-MemoryPartitioning-Explicit-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
-- The following IE may only be used in FDD, in MIMO dual stream transmission mode
    {ID id-HARQ-MemoryPartitioningInfoExtForMIMO    CRITICALITY ignore  EXTENSION HARQ-MemoryPartitioningInfoExtForMIMO  PRESENCE optional},
    ...
}

HARQ-MemoryPartitioningList ::= SEQUENCE (SIZE (1..maxNrOfHARQProcesses)) OF HARQ-MemoryPartitioningItem

HARQ-MemoryPartitioningInfoExtForMIMO ::= SEQUENCE (SIZE (4|6|8)) OF HARQ-MemoryPartitioningItem

HARQ-MemoryPartitioningItem ::= SEQUENCE {
    process-Memory-Size                 ENUMERATED {
                                        hms800, hms1600, hms2400, hms3200, hms4000,
                                        hms4800, hms5600, hms6400, hms7200, hms8000,
                                        hms8800, hms9600, hms10400, hms11200, hms12000,
                                        hms12800, hms13600, hms14400, hms15200, hms16000,
                                        hms17600, hms19200, hms20800, hms22400, hms24000,
                                        hms25600, hms27200, hms28800, hms30400, hms32000,
                                        hms36000, hms40000, hms44000, hms48000, hms52000,
                                        hms56000, hms60000, hms64000, hms68000, hms72000,
                                        hms76000, hms80000, hms88000, hms96000, hms104000,
                                        hms112000, hms120000, hms128000, hms136000, hms144000,
                                        hms152000, hms160000, hms176000, hms192000, hms208000,
                                        hms224000, hms240000, hms256000, hms272000, hms288000,
                                        hms304000,...},
    iE-Extensions                       ProtocolExtensionContainer { { HARQ-MemoryPartitioningItem-ExtIEs } }      OPTIONAL,
    ...
}

HARQ-MemoryPartitioningItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
HARQ-Preamble-Mode ::= ENUMERATED {
   mode0,
   mode1
}


HARQ-Process-Allocation-2ms-EDCH ::= BIT STRING ( SIZE(maxNrOfEDCHHARQProcesses2msEDCH) )

HARQ-Preamble-Mode-Activation-Indicator ::=ENUMERATED   {
    harqPreambleModeActivated
}

HSDPA-Capability ::= ENUMERATED {hsdpa-capable, hsdpa-non-capable}

HS-DSCHProvidedBitRate ::= SEQUENCE (SIZE (1..maxNrOfPriorityClasses)) OF HS-DSCHProvidedBitRate-Item

HS-DSCHProvidedBitRate-Item ::= SEQUENCE {
    schedulingPriorityIndicator         SchedulingPriorityIndicator,
    hS-DSCHProvidedBitRateValue         HS-DSCHProvidedBitRateValue,
    iE-Extensions                       ProtocolExtensionContainer { { HS-DSCHProvidedBitRate-Item-ExtIEs} }          OPTIONAL,
    ...
}

HS-DSCHProvidedBitRate-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCHProvidedBitRateValue ::= INTEGER(0..16777215,...)
-- except for 7.68Mcps TDD Unit bit/s, Range 0..2^24-1, Step 1 bit
-- 7.68Mcps TDD Unit 2bit/s, Range 0..2^24-1, Step 1


HS-DSCHProvidedBitRateValueInformation-For-CellPortion ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF HS-
DSCHProvidedBitRateValueInformation-For-CellPortion-Item

HS-DSCHProvidedBitRateValueInformation-For-CellPortion-Item ::= SEQUENCE{
    cellPortionID                   CellPortionID,
    hS-DSCHProvidedBitRateValue     HS-DSCHProvidedBitRate,
    iE-Extensions                   ProtocolExtensionContainer { {HS-DSCHProvidedBitRateValueInformation-For-CellPortion-Item-ExtIEs} } OPTIONAL,
    ...
}

HS-DSCHProvidedBitRateValueInformation-For-CellPortion-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCHRequiredPower ::= SEQUENCE (SIZE (1..maxNrOfPriorityClasses)) OF HS-DSCHRequiredPower-Item

HS-DSCHRequiredPower-Item ::= SEQUENCE {
    schedulingPriorityIndicator             SchedulingPriorityIndicator,
    hS-DSCHRequiredPowerValue               HS-DSCHRequiredPowerValue,
    hS-DSCHRequiredPowerPerUEInformation    HS-DSCHRequiredPowerPerUEInformation                                  OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { HS-DSCHRequiredPower-Item-ExtIEs} }    OPTIONAL,
    ...
```

```
}

HS-DSCHRequiredPower-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCHRequiredPowerValue ::= INTEGER(0..1000)
-- Unit %, Range 0 ..1000, Step 0.1%

HS-DSCHRequiredPowerPerUEInformation ::= SEQUENCE (SIZE (1.. maxNrOfContextsOnUeList)) OF HS-DSCHRequiredPowerPerUEInformation-Item


HS-DSCHRequiredPowerPerUEInformation-Item ::= SEQUENCE {
    cRNC-CommunicationContextID             CRNC-CommunicationContextID,
    hS-DSCHRequiredPowerPerUEWeight         HS-DSCHRequiredPowerPerUEWeight     OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { HS-DSCHRequiredPowerPerUEInformation-Item-ExtIEs} }    OPTIONAL,
    ...
}

HS-DSCHRequiredPowerPerUEInformation-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCHRequiredPowerPerUEWeight ::= INTEGER(0..100)
-- Unit %, Range 0 ..100, Step 1%

HS-DSCHRequiredPowerValueInformation-For-CellPortion ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF HS-DSCHRequiredPowerValueInformation-
For-CellPortion-Item

HS-DSCHRequiredPowerValueInformation-For-CellPortion-Item ::= SEQUENCE{
    cellPortionID               CellPortionID,
    hS-DSCHRequiredPowerValue   HS-DSCHRequiredPower,
    iE-Extensions               ProtocolExtensionContainer { { HS-DSCHRequiredPowerValueInformation-For-CellPortion-Item-ExtIEs} }   OPTIONAL,
    ...
}

HS-DSCHRequiredPowerValueInformation-For-CellPortion-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


HSDPA-Associated-PICH-Information  ::= CHOICE {
    hsdpa-PICH-Shared-with-PCH                  HSDPA-PICH-Shared-with-PCH,
    hsdpa-PICH-notShared-with-PCH               HSDPA-PICH-notShared-with-PCH,
    ...
}

HSDPA-PICH-Shared-with-PCH ::= SEQUENCE {
    hsdpa-PICH-SharedPCH-ID                     CommonPhysicalChannelID,
    ...
}

HSDPA-PICH-notShared-with-PCH ::= SEQUENCE {
    hSDPA-PICH-notShared-ID                     CommonPhysicalChannelID,
```

```
    fdd-DL-Channelisation-CodeNumber                FDD-DL-ChannelisationCodeNumber,
    pich-Power                                      PICH-Power,
    pich-Mode                                       PICH-Mode,
    sttd-Indicator                                  STTD-Indicator,
    ...
}

HSDSCH-Common-System-InformationFDD  ::= SEQUENCE {
    hsdsch-Common-Information                       HSDSCH-Common-Information                                       OPTIONAL,
    commonMACFlow-Specific-Information              CommonMACFlow-Specific-InfoList                                 OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-Common-System-InformationFDD-ExtIEs } }    OPTIONAL,
    ...
}

HSDSCH-Common-System-InformationFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-Common-System-Information-ResponseFDD  ::= SEQUENCE {
    hsSCCH-Specific-Information-ResponseFDD         HSSCCH-Specific-InformationRespListFDD                          OPTIONAL,
    hARQ-MemoryPartitioning                         HARQ-MemoryPartitioning                                         OPTIONAL,
    commonMACFlow-Specific-Info-Response            CommonMACFlow-Specific-InfoList-Response                        OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-Common-System-Information-ResponseFDD-ExtIEs } }
    OPTIONAL,
    ...
}

HSDSCH-Common-System-Information-ResponseFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-Common-Information ::= SEQUENCE {
    cCCH-PriorityQueue-Id                                       PriorityQueue-Id,
    sRB1-PriorityQueue-Id                                       PriorityQueue-Id,
    associatedCommon-MACFlow                                    Common-MACFlow-ID,
    fACH-Measurement-Occasion-Cycle-Length-Coefficient          FACH-Measurement-Occasion-Cycle-Length-Coefficient         OPTIONAL,
    rACH-Measurement-Result                                     RACH-Measurement-Result,
    bCCH-Specific-HSDSCH-RNTI-Information                       BCCH-Specific-HSDSCH-RNTI-Information,
    iE-Extensions                     ProtocolExtensionContainer { { HSDSCH-Common-Information-ExtIEs} }            OPTIONAL,
    ...
}

HSDSCH-Common-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-FDD-Information ::= SEQUENCE {
    hSDSCH-MACdFlows-Information            HSDSCH-MACdFlows-Information,
    ueCapability-Info                       UE-Capability-Information,
    mAChs-Reordering-Buffer-Size-for-RLC-UM  MAChsReorderingBufferSize-for-RLC-UM,
    cqiFeedback-CycleK                      CQI-Feedback-Cycle,
    cqiRepetitionFactor                     CQI-RepetitionFactor                    OPTIONAL,
    -- This IE shall be present if the CQI Feedback Cycle k is greater than 0
    ackNackRepetitionFactor                 AckNack-RepetitionFactor,
```

```
    cqiPowerOffset                          CQI-Power-Offset,
    ackPowerOffset                          Ack-Power-Offset,
    nackPowerOffset                         Nack-Power-Offset,
    hsscch-PowerOffset                      HSSCCH-PowerOffset                      OPTIONAL,
    measurement-Power-Offset                Measurement-Power-Offset                OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { HSDSCH-FDD-Information-ExtIEs} }       OPTIONAL,
    ...
}

HSDSCH-FDD-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HARQ-Preamble-Mode                  CRITICALITY ignore      EXTENSION   HARQ-Preamble-Mode                  PRESENCE optional}|
    { ID id-MIMO-ActivationIndicator            CRITICALITY reject      EXTENSION   MIMO-ActivationIndicator            PRESENCE optional}|
    { ID id-HSDSCH-MACdPDUSizeFormat            CRITICALITY reject      EXTENSION   HSDSCH-MACdPDUSizeFormat            PRESENCE optional}|
    { ID id-SixtyfourQAM-UsageAllowedIndicator  CRITICALITY ignore      EXTENSION   SixtyfourQAM-UsageAllowedIndicator  PRESENCE optional},
    ...
}

HSDSCH-TDD-Information ::= SEQUENCE {
    hSDSCH-MACdFlows-Information            HSDSCH-MACdFlows-Information,
    ueCapability-Info                       UE-Capability-Information,
    mAChs-Reordering-Buffer-Size-for-RLC-UM MAChsReorderingBufferSize-for-RLC-UM,
    tDD-AckNack-Power-Offset                TDD-AckNack-Power-Offset,
    iE-Extensions                           ProtocolExtensionContainer { { HSDSCH-TDD-Information-ExtIEs} }       OPTIONAL,
    ...
}

HSDSCH-TDD-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSSICH-SIRTarget        CRITICALITY ignore          EXTENSION   UL-SIR                                  PRESENCE    optional}|
 -- Applicable to 1.28Mcps TDD only
    { ID id-HSSICH-TPC-StepSize     CRITICALITY ignore          EXTENSION   TDD-TPC-UplinkStepSize-LCR              PRESENCE    optional}|
     -- Applicable to 1.28Mcps TDD only
    { ID id-HSDSCH-MACdPDUSizeFormat    CRITICALITY reject      EXTENSION   HSDSCH-MACdPDUSizeFormat                PRESENCE optional}|
    { ID id-tSN-Length              CRITICALITY reject          EXTENSION  TSN-Length                               PRESENCE optional },
    -- Applicable for 1.28Mcps TDD when using multiple frequencies
    ...
}


HSDSCH-Information-to-Modify ::= SEQUENCE {
    hsDSCH-MACdFlow-Specific-Info-to-Modify     HSDSCH-MACdFlow-Specific-InfoList-to-Modify             OPTIONAL,
    priorityQueueInfotoModify                   PriorityQueue-InfoList-to-Modify                        OPTIONAL,
    mAChs-Reordering-Buffer-Size-for-RLC-UM     MAChsReorderingBufferSize-for-RLC-UM                    OPTIONAL,
    cqiFeedback-CycleK                          CQI-Feedback-Cycle                                      OPTIONAL,   -- For FDD only
    cqiRepetitionFactor                         CQI-RepetitionFactor                                    OPTIONAL,   -- For FDD only
    ackNackRepetitionFactor                     AckNack-RepetitionFactor                                OPTIONAL,   -- For FDD only
    cqiPowerOffset                              CQI-Power-Offset                                        OPTIONAL,   -- For FDD only
    ackPowerOffset                              Ack-Power-Offset                                        OPTIONAL,   -- For FDD only
    nackPowerOffset                             Nack-Power-Offset                                       OPTIONAL,   -- For FDD only
    hsscch-PowerOffset                          HSSCCH-PowerOffset                                      OPTIONAL,   -- For FDD only
    measurement-Power-Offset                    Measurement-Power-Offset                                OPTIONAL,   -- For FDD only
    hSSCCHCodeChangeGrant                       HSSCCH-Code-Change-Grant                                OPTIONAL,
    tDDAckNackPowerOffset                       TDD-AckNack-Power-Offset                                OPTIONAL,   -- For TDD only
    iE-Extensions                               ProtocolExtensionContainer { { HSDSCH-Information-to-Modify-ExtIEs} }   OPTIONAL,
    ...
```

```
}

HSDSCH-Information-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HARQ-Preamble-Mode                  CRITICALITY ignore      EXTENSION   HARQ-Preamble-Mode             PRESENCE optional}|
    { ID id-HSSICH-SIRTarget                    CRITICALITY ignore      EXTENSION   UL-SIR                         PRESENCE optional}|
     -- Applicable to 1.28Mcps TDD only
    { ID id-ueCapability-Info                   CRITICALITY ignore      EXTENSION   UE-Capability-Information      PRESENCE optional}|
    { ID id-HSSICH-TPC-StepSize                 CRITICALITY ignore      EXTENSION   TDD-TPC-UplinkStepSize-LCR     PRESENCE optional}|
     -- Applicable to 1.28Mcps TDD only
    { ID id-HS-PDSCH-Code-Change-Grant          CRITICALITY ignore      EXTENSION   HS-PDSCH-Code-Change-Grant     PRESENCE optional}|
     -- Applicable to FDD only
    { ID id-MIMO-Mode-Indicator                 CRITICALITY reject      EXTENSION   MIMO-Mode-Indicator            PRESENCE optional }|
    { ID id-HSDSCH-MACdPDUSizeFormat            CRITICALITY reject      EXTENSION   HSDSCH-MACdPDUSizeFormat       PRESENCE optional}|
    { ID id-SixtyfourQAM-UsageAllowedIndicator  CRITICALITY ignore      EXTENSION   SixtyfourQAM-UsageAllowedIndicator PRESENCE optional},
    ...
}

HSDSCH-MACdFlow-Specific-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem-to-Modify

HSDSCH-MACdFlow-Specific-InfoItem-to-Modify ::= SEQUENCE {
    hsDSCH-MACdFlow-ID                  HSDSCH-MACdFlow-ID,
    allocationRetentionPriority         AllocationRetentionPriority                 OPTIONAL,
    transportBearerRequestIndicator     TransportBearerRequestIndicator,
    bindingID                           BindingID                                   OPTIONAL,
    transportLayerAddress               TransportLayerAddress                       OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs} }   OPTIONAL,
    ...
}

HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-TnlQos           CRITICALITY ignore      EXTENSION TnlQos    PRESENCE optional},
    ...
}

HSDSCH-MACdPDUSizeFormat ::= ENUMERATED {
    indexedMACdPDU-Size,
    flexibleMACdPDU-Size
}

HSDSCH-MACdPDU-SizeCapability ::= ENUMERATED {
    indexedSizeCapable,
    flexibleSizeCapable
}

HSDSCH-Information-to-Modify-Unsynchronised ::= SEQUENCE {
    hsDSCH-MACdFlow-Specific-Info-to-Modify         HSDSCH-MACdFlow-Specific-InfoList-to-Modify                     OPTIONAL,
    priorityQueueInfotoModifyUnsynchronised         PriorityQueue-InfoList-to-Modify-Unsynchronised                 OPTIONAL,
    cqiPowerOffset                                  CQI-Power-Offset                                                OPTIONAL,   -- For FDD only
    ackPowerOffset                                  Ack-Power-Offset                                                OPTIONAL,   -- For FDD only
    nackPowerOffset                                 Nack-Power-Offset                                               OPTIONAL,   -- For FDD only
    hsscch-PowerOffset                              HSSCCH-PowerOffset                                              OPTIONAL,   -- For FDD only
    tDDAckNackPowerOffset                           TDD-AckNack-Power-Offset                                        OPTIONAL,   -- For TDD only
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-Information-to-Modify-Unsynchronised-ExtIEs} }
    OPTIONAL,
```

```
    ...
}

HSDSCH-Information-to-Modify-Unsynchronised-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HARQ-Preamble-Mode                  CRITICALITY ignore      EXTENSION   HARQ-Preamble-Mode             PRESENCE optional}|
    { ID id-HSSICH-SIRTarget                    CRITICALITY ignore      EXTENSION   UL-SIR                         PRESENCE optional}|
     -- Applicable to 1.28Mcps TDD only
    { ID id-ueCapability-Info                   CRITICALITY ignore      EXTENSION   UE-Capability-Information      PRESENCE optional}|
    { ID id-HSSICH-TPC-StepSize                 CRITICALITY ignore      EXTENSION   TDD-TPC-UplinkStepSize-LCR     PRESENCE optional}|
     -- Applicable to 1.28Mcps TDD only
    { ID id-MIMO-Mode-Indicator                 CRITICALITY reject      EXTENSION MIMO-Mode-Indicator              PRESENCE optional }|
    { ID id-SixtyfourQAM-UsageAllowedIndicator  CRITICALITY ignore      EXTENSION   SixtyfourQAM-UsageAllowedIndicator PRESENCE optional},
    ...
}

HSDSCH-FDD-Information-Response ::= SEQUENCE {
    hsDSCH-MACdFlow-Specific-InformationResp        HSDSCH-MACdFlow-Specific-InformationResp                                    OPTIONAL,
    hsSCCH-Specific-Information-ResponseFDD         HSSCCH-Specific-InformationRespListFDD                                      OPTIONAL,
    hARQ-MemoryPartitioning                         HARQ-MemoryPartitioning                                                     OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-FDD-Information-Response-ExtIEs } }    OPTIONAL,
    ...
}

HSDSCH-FDD-Information-Response-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
{   ID id-HARQ-Preamble-Mode-Activation-Indicator       CRITICALITY ignore  EXTENSION   HARQ-Preamble-Mode-Activation-Indicator
    PRESENCE    optional}|
    { ID id-MIMO-N-M-Ratio                              CRITICALITY ignore  EXTENSION   MIMO-N-M-Ratio                          PRESENCE
optional}|
    { ID id-SixtyfourQAM-DL-UsageIndicator              CRITICALITY ignore  EXTENSION SixtyfourQAM-DL-UsageIndicator     PRESENCE optional },
    ...
}

HSDSCH-Paging-System-InformationFDD  ::= SEQUENCE {
    paging-MACFlow-Specific-Information             Paging-MACFlow-Specific-Information,
    hSSCCH-Power                                    DL-Power,
    hSPDSCH-Power                                   DL-Power,
    number-of-PCCH-transmission                     Number-of-PCCH-transmission,
    transport-Block-Size-List                       Transport-Block-Size-List,
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-Paging-System-InformationFDD-ExtIEs } }    OPTIONAL,
    ...
}

HSDSCH-Paging-System-InformationFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-Paging-System-Information-ResponseFDD ::= SEQUENCE (SIZE (1..maxNrOfPagingMACFlow)) OF HSDSCH-Paging-System-Information-ResponseList

HSDSCH-Paging-System-Information-ResponseList  ::= SEQUENCE {
    pagingMACFlow-ID                                Paging-MACFlow-ID,
    bindingID                                       BindingID                                   OPTIONAL,
    transportLayerAddress                           TransportLayerAddress                       OPTIONAL,
    hSPDSCH-Code-Index                              HSPDSCH-Code-Index,
```

```
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-Paging-System-Information-ResponseList-ExtIEs } }
    OPTIONAL,
    ...
}

HSDSCH-Paging-System-Information-ResponseList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-TDD-Information-Response ::= SEQUENCE {
    hsDSCH-MACdFlow-Specific-InformationResp        HSDSCH-MACdFlow-Specific-InformationResp    OPTIONAL,
    hsSCCH-Specific-Information-ResponseTDD         HSSCCH-Specific-InformationRespListTDD      OPTIONAL, -- Not Applicable to 1.28Mcps TDD or
7.68Mcps TDD
    hsSCCH-Specific-Information-ResponseTDDLCR      HSSCCH-Specific-InformationRespListTDDLCR   OPTIONAL, -- Not Applicable to 3.84Mcps TDD or
7.68Mcps TDD,This HSSCCH Specific Information is for the first Frequency repetition, HSSCCH Specific Information for Frequency repetitions 2 and
on, should be defined in MultipleFreq-HSPDSCH-InformationList-ResponseTDDLCR
    hARQ-MemoryPartitioning                         HARQ-MemoryPartitioning                     OPTIONAL, -- This HARQ Memory Partitioning
Information is for the first Frequency repetition, HARQ Memory Partitioning Information for Frequency repetitions 2 and on, should be defined in
MultipleFreq-HSPDSCH-InformationList-ResponseTDDLCR
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-TDD-Information-Response-ExtIEs } }     OPTIONAL,
    ...
}

HSDSCH-TDD-Information-Response-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-hsSCCH-Specific-Information-ResponseTDD768                   CRITICALITY ignore  EXTENSION HSSCCH-Specific-InformationRespListTDD768
    PRESENCE optional}|
{ ID id-UARFCNforNt                                                     CRITICALITY ignore  EXTENSION UARFCN
                    PRESENCE optional}|
    -- Applicable to 1.28Mcps TDD when using multiple frequencies ,This is the UARFCN for the first Frequency repetition
{ ID id-multipleFreq-HSPDSCH-InformationList-ResponseTDDLCR             CRITICALITY ignore  EXTENSION MultipleFreq-HSPDSCH-InformationList-
ResponseTDDLCR  PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD when using multiple frequencies ,This MultipleFreq-HSPDSCH-InformationList-ResponseTDDLCR is the HS-SCCH and HARQ
Memory Partitioning information for the 2nd and beyond HS-PDSCH frequencies.
{ ID id-multicarrier-number                                             CRITICALITY ignore  EXTENSION  Multicarrier-Number
                    PRESENCE optional },
    -- Applicable for 1.28Mcps TDD when using multiple frequencies
    ...
}

HSDSCH-MACdFlow-Specific-InformationResp ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InformationResp-Item

HSDSCH-MACdFlow-Specific-InformationResp-Item ::= SEQUENCE {
    hsDSCHMacdFlow-Id                               HSDSCH-MACdFlow-ID,
    bindingID                                       BindingID                   OPTIONAL,
    transportLayerAddress                           TransportLayerAddress       OPTIONAL,
    hSDSCH-Initial-Capacity-Allocation              HSDSCH-Initial-Capacity-Allocation OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InformationRespItem-ExtIEs } }
    OPTIONAL,
    ...
}

HSDSCH-MACdFlow-Specific-InformationRespItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
HSDSCH-MACdFlows-Information ::= SEQUENCE {
    hSDSCH-MACdFlow-Specific-Info                   HSDSCH-MACdFlow-Specific-InfoList,
    priorityQueue-Info                              PriorityQueue-InfoList,
    iE-Extensions                                   ProtocolExtensionContainer { { HSDSCH-MACdFlows-Information-ExtIEs } }        OPTIONAL,
    ...
}

HSDSCH-MACdFlows-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-MACdFlow-Specific-InfoList ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem

HSDSCH-MACdFlow-Specific-InfoItem ::= SEQUENCE {
    hsDSCH-MACdFlow-ID                  HSDSCH-MACdFlow-ID,
    allocationRetentionPriority         AllocationRetentionPriority,
    bindingID                           BindingID                   OPTIONAL,
    transportLayerAddress               TransportLayerAddress       OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs} }    OPTIONAL,
    ...
}

HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-TnlQos           CRITICALITY ignore      EXTENSION TnlQos    PRESENCE optional },
    ...
}

HSDSCH-MACdFlows-to-Delete ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlows-to-Delete-Item

HSDSCH-MACdFlows-to-Delete-Item ::= SEQUENCE {
    hsDSCH-MACdFlow-ID                  HSDSCH-MACdFlow-ID,
    iE-Extensions                       ProtocolExtensionContainer { { HSDSCH-MACdFlows-to-Delete-Item-ExtIEs} }      OPTIONAL,
    ...
}

HSDSCH-MACdFlows-to-Delete-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSCCH-PowerOffset ::= INTEGER (0..255)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB

HSDSCH-Initial-Capacity-Allocation::= SEQUENCE (SIZE (1..maxNrOfPriorityQueues)) OF HSDSCH-Initial-Capacity-AllocationItem

HSDSCH-Initial-Capacity-AllocationItem ::= SEQUENCE {
    schedulingPriorityIndicator     SchedulingPriorityIndicator,
    maximum-MACdPDU-Size            MACdPDU-Size,
    hSDSCH-InitialWindowSize        HSDSCH-InitialWindowSize,
    iE-Extensions                   ProtocolExtensionContainer { { HSDSCH-Initial-Capacity-AllocationItem-ExtIEs } } OPTIONAL,
    ...
}
```

```
HSDSCH-Initial-Capacity-AllocationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MaximumMACdPDU-SizeExtended     CRITICALITY ignore      EXTENSION   MAC-PDU-SizeExtended PRESENCE optional},
    ...
}

HSDSCH-InitialWindowSize            ::= INTEGER (1..255)
-- Number of MAC-d PDUs.

HSSCCH-Specific-InformationRespListFDD ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-Codes

HSSCCH-Codes ::= SEQUENCE {
    codeNumber                                  INTEGER (0..127),
    iE-Extensions                               ProtocolExtensionContainer { { HSSCCH-Specific-InformationRespItemFDD-ExtIEs } }    OPTIONAL,
    ...
}

HSSCCH-Specific-InformationRespItemFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSCCH-Specific-InformationRespListTDD ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-Specific-InformationRespItemTDD

HSSCCH-Specific-InformationRespItemTDD ::= SEQUENCE {
    timeslot                                    TimeSlot,
    midambleShiftAndBurstType                   MidambleShiftAndBurstType,
    tDD-ChannelisationCode                      TDD-ChannelisationCode,
    hSSICH-Info                                 HSSICH-Info,
    iE-Extensions                               ProtocolExtensionContainer { { HSSCCH-Specific-InformationRespItemTDD-ExtIEs } }
    OPTIONAL,
    ...
}

HSSCCH-Specific-InformationRespItemTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSCCH-Specific-InformationRespListTDDLCR ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-Specific-InformationRespItemTDDLCR

HSSCCH-Specific-InformationRespItemTDDLCR ::= SEQUENCE {
    timeslotLCR                                 TimeSlotLCR,
    midambleShiftLCR                            MidambleShiftLCR,
    first-TDD-ChannelisationCode                    TDD-ChannelisationCode,
    second-TDD-ChannelisationCode           TDD-ChannelisationCode,
    hSSICH-InfoLCR                              HSSICH-InfoLCR,
    iE-Extensions                               ProtocolExtensionContainer { { HSSCCH-Specific-InformationRespItemTDDLCR-ExtIEs } }
    OPTIONAL,
    ...
}

HSSCCH-Specific-InformationRespItemTDDLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-UARFCNforNt      CRITICALITY reject      EXTENSION UARFCN        PRESENCE optional},
    -- Applicable for 1.28Mcps TDD when using multiple frequencies. this IE indicates the frequency which is actually used by the  HS-SCCH
    ...
}
```

```
HSSCCH-Specific-InformationRespListTDD768 ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-Specific-InformationRespItemTDD768

HSSCCH-Specific-InformationRespItemTDD768 ::= SEQUENCE {
    timeslot                                    TimeSlot,
    midambleShiftAndBurstType768                MidambleShiftAndBurstType768,
    tDD-ChannelisationCode768                   TDD-ChannelisationCode768,
    hSSICH-Info768                              HSSICH-Info768,
    iE-Extensions                               ProtocolExtensionContainer { { HSSCCH-Specific-InformationRespItemTDD768-ExtIEs } }
    OPTIONAL,
    ...
}

HSSCCH-Specific-InformationRespItemTDD768-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


HSSICH-Info ::= SEQUENCE {
    hsSICH-ID                                   HS-SICH-ID,
    timeslot                                    TimeSlot,
    midambleShiftAndBurstType                   MidambleShiftAndBurstType,
    tDD-ChannelisationCode                      TDD-ChannelisationCode,
    iE-Extensions                               ProtocolExtensionContainer { { HSSICH-Info-ExtIEs } }       OPTIONAL,
    ...
}

HSSICH-Info-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSICH-InfoLCR ::= SEQUENCE {
    hsSICH-ID                                   HS-SICH-ID,
    timeslotLCR                                 TimeSlotLCR,
    midambleShiftLCR                            MidambleShiftLCR,
    tDD-ChannelisationCode                    TDD-ChannelisationCode,
    iE-Extensions                               ProtocolExtensionContainer { { HSSICH-Info-LCR-ExtIEs } }      OPTIONAL,
    ...
}

HSSICH-Info-LCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-HS-SICH-ID                         CRITICALITY ignore  EXTENSION Extended-HS-SICH-ID  PRESENCE optional},
    -- used if the HS-SICH identity has a value larger than 31
    ...
}

HSSICH-Info768 ::= SEQUENCE {
    hsSICH-ID                                   HS-SICH-ID,
    timeslot                                    TimeSlot,
    midambleShiftAndBurstType768                MidambleShiftAndBurstType768,
    tDD-ChannelisationCode768                   TDD-ChannelisationCode768,
    iE-Extensions                               ProtocolExtensionContainer { { HSSICH-Info-768-ExtIEs } }      OPTIONAL,
    ...
}
```

```
HSSICH-Info-768-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


HS-SICH-Reception-Quality-Value ::= SEQUENCE {
    failed-HS-SICH              HS-SICH-failed,
    missed-HS-SICH              HS-SICH-missed,
    total-HS-SICH               HS-SICH-total,
    iE-Extensions               ProtocolExtensionContainer { { HS-SICH-Reception-Quality-Value-ExtIEs} } OPTIONAL,
...
}

HS-SICH-Reception-Quality-Value-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Additional-failed-HS-SICH       CRITICALITY reject      EXTENSION   HS-SICH-failed      PRESENCE    optional }|
    -- Mandatory for 1.28Mcps TDD only, used when there are more than 20 failed HS-SICH
    {ID id-Additional-missed-HS-SICH        CRITICALITY reject      EXTENSION   HS-SICH-missed      PRESENCE optional}|
    -- Mandatory for 1.28Mcps TDD only, used when there are more than 20 missed HS-SICH
    {ID id-Additional-total-HS-SICH         CRITICALITY reject      EXTENSION   HS-SICH-total       PRESENCE optional},
    -- Mandatory for 1.28Mcps TDD only, used when there are more than 20 total HS-SICH
    ...
}

HS-SICH-failed ::= INTEGER (0..20)

HS-SICH-missed ::= INTEGER (0..20)

HS-SICH-total ::= INTEGER (0..20)

HS-SICH-Reception-Quality-Measurement-Value ::= INTEGER (0..20)
-- According to mapping in [23]

HSDSCH-MACdFlow-ID ::= INTEGER (0..maxNrOfMACdFlows-1)

HSDSCH-RNTI ::= INTEGER (0..65535)

HS-PDSCH-FDD-Code-Information ::= SEQUENCE {
    number-of-HS-PDSCH-codes                    INTEGER (0..maxHS-PDSCHCodeNrComp-1),
    hS-PDSCH-Start-code-number                HS-PDSCH-Start-code-number      OPTIONAL,
-- Only included when number of HS-DSCH codes > 0
    iE-Extensions               ProtocolExtensionContainer { { HS-PDSCH-FDD-Code-Information-ExtIEs} } OPTIONAL,
    ...
}

HS-PDSCH-FDD-Code-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-PDSCH-Start-code-number ::=  INTEGER (1..maxHS-PDSCHCodeNrComp-1)

HS-SCCH-ID ::= INTEGER (0..31)
HS-SICH-ID ::= INTEGER (0..31)

HS-SCCH-FDD-Code-Information::= CHOICE {
```

```
    replace                 HS-SCCH-FDD-Code-List,
    remove                  NULL,
    ...
}

HS-SCCH-FDD-Code-List ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-FDD-Code-Information-Item

HS-SCCH-FDD-Code-Information-Item ::= INTEGER (0..maxHS-SCCHCodeNrComp-1)

HSSCCH-CodeChangeIndicator  ::= ENUMERATED {
    hsSCCHCodeChangeNeeded
}

HSSCCH-Code-Change-Grant    ::= ENUMERATED {
    changeGranted
}

HS-PDSCH-Code-Change-Indicator  ::= ENUMERATED {
    hsPDSCHCodeChangeNeeded
}

HS-PDSCH-Code-Change-Grant  ::= ENUMERATED {
    changeGranted
}

HSDSCH-Configured-Indicator::= ENUMERATED {
    configured-HS-DSCH,
    no-configured-HS-DSCH
}

HS-DSCH-Serving-Cell-Change-Info ::= SEQUENCE {
    hspdsch-RL-ID                   RL-ID,
    hSDSCH-FDD-Information          HSDSCH-FDD-Information  OPTIONAL,
    hsdsch-RNTI                     HSDSCH-RNTI,
    iE-Extensions                   ProtocolExtensionContainer { { HS-DSCH-Serving-Cell-Change-Info-ExtIEs} }       OPTIONAL,
    ...
}

HS-DSCH-Serving-Cell-Change-Info-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-ContinuousPacketConnectivityHS-SCCH-less-Information    CRITICALITY reject      EXTENSION ContinuousPacketConnectivityHS-SCCH-less-
Information         PRESENCE optional },
    ...
}

HS-DSCH-Serving-Cell-Change-Info-Response::= SEQUENCE {
    hS-DSCH-serving-cell-choice     HS-DSCH-serving-cell-choice,
    iE-Extensions                   ProtocolExtensionContainer { { HS-DSCH-serving-cell-informationResponse-ExtIEs} } OPTIONAL,
    ...
}

HS-DSCH-serving-cell-informationResponse-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
HS-DSCH-serving-cell-choice ::= CHOICE {
    hS-serving-cell-change-successful       HS-serving-cell-change-successful,
    hS-serving-cell-change-unsuccessful     HS-serving-cell-change-unsuccessful,
    ...
}

HS-serving-cell-change-successful ::= SEQUENCE {
    hSDSCH-FDD-Information-Response     HSDSCH-FDD-Information-Response,
    iE-Extensions                       ProtocolExtensionContainer { { HS-serving-cell-change-successful-ExtIEs} } OPTIONAL,
    ...
}

HS-serving-cell-change-successful-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-ContinuousPacketConnectivityHS-SCCH-less-Information-Response   CRITICALITY ignore    EXTENSION ContinuousPacketConnectivityHS-SCCH-
less-Information-Response           PRESENCE optional },
    ...
}

HS-serving-cell-change-unsuccessful ::= SEQUENCE {
    cause                           Cause,
    iE-Extensions                   ProtocolExtensionContainer { { HS-serving-cell-change-unsuccessful-ExtIEs} } OPTIONAL,
    ...
}

HS-serving-cell-change-unsuccessful-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


HSDSCH-FDD-Update-Information ::= SEQUENCE {
    hsSCCHCodeChangeIndicator                   HSSCCH-CodeChangeIndicator              OPTIONAL,
    cqiFeedback-CycleK                          CQI-Feedback-Cycle                      OPTIONAL,
    cqiRepetitionFactor                         CQI-RepetitionFactor                    OPTIONAL,
    ackNackRepetitionFactor                     AckNack-RepetitionFactor                OPTIONAL,
    cqiPowerOffset                              CQI-Power-Offset                        OPTIONAL,
    ackPowerOffset                              Ack-Power-Offset                        OPTIONAL,
    nackPowerOffset                             Nack-Power-Offset                       OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { HSDSCH-FDD-Update-Information-ExtIEs } }    OPTIONAL,
    ...
}

HSDSCH-FDD-Update-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-HS-PDSCH-Code-Change-Indicator       CRITICALITY ignore      EXTENSION   HS-PDSCH-Code-Change-Indicator  PRESENCE optional },
    ...
}

HSDSCH-TDD-Update-Information ::= SEQUENCE {
    hsSCCHCodeChangeIndicator                   HSSCCH-CodeChangeIndicator              OPTIONAL,
    tDDAckNackPowerOffset                       TDD-AckNack-Power-Offset                OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { HSDSCH-TDD-Update-Information-ExtIEs } }    OPTIONAL,
    ...
}
```

```
HSDSCH-TDD-Update-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
HSPDSCH-Code-Index ::= INTEGER (1..maxHS-PDSCHCodeNrComp-1)
-- index of first HS-PDSCH code

HSPDSCH-First-Code-Index ::= INTEGER (1..maxHS-PDSCHCodeNrComp-1)
    -- index of first HS-PDSCH code

HSPDSCH-Second-Code-Index ::= INTEGER (1..maxHS-PDSCHCodeNrComp-1)
    -- index of second HS-PDSCH code

HSPDSCH-Second-Code-Support ::= BOOLEAN
    -- true: applied, false: not applied

-- ========================================
--  I
-- ========================================

IB-OC-ID ::= INTEGER (1..16)

IB-SG-DATA ::= BIT STRING
-- Contains SIB data fixed" or "SIB data variable" in segment as encoded in ref.[18].

IB-SG-POS ::= INTEGER (0..4094)
-- Only even positions allowed

IB-SG-REP ::= ENUMERATED {rep4, rep8, rep16, rep32, rep64, rep128, rep256, rep512, rep1024, rep2048, rep4096}

IB-Type ::= ENUMERATED {
    mIB,
    sB1,
    sB2,
    sIB1,
    sIB2,
    sIB3,
    sIB4,
    sIB5,
    sIB6,
    sIB7,
    not-Used-sIB8,
    not-Used-sIB9,
    not-Used-sIB10,
    sIB11,
    sIB12,
    sIB13,
    sIB13dot1,
    sIB13dot2,
    sIB13dot3,
    sIB13dot4,
    sIB14,
    sIB15,
    sIB15dot1,
    sIB15dot2,
```

```
    sIB15dot3,
    sIB16,
    ...,
    sIB17,
    sIB15dot4,
    sIB18,
    sIB15dot5,
    sIB5bis,
    sIB11bis,
    sIB15bis,
    sIB15dot1bis,
    sIB15dot2bis,
    sIB15dot3bis,
    sIB15dot6,
    sIB15dot7,
    sIB15dot8
}


Inactivity-Threshold-for-UE-DRX-Cycle ::= ENUMERATED {v0, v1, v2, v4, v8, v16, v32, v64, v128, v256, v512}
-- Unit subframe

Inactivity-Threshold-for-UE-DTX-Cycle2 ::= ENUMERATED {v1, v4, v8, v16, v32, v64, v128, v256}
-- Unit E-DCH TTI

Inactivity-Threshold-for-UE-Grant-Monitoring ::= ENUMERATED {v0, v1, v2, v4, v8, v16, v32, v64, v128, v256}
-- Unit E-DCH TTI


InformationReportCharacteristics ::= CHOICE {
    onDemand                NULL,
    periodic                InformationReportCharacteristicsType-ReportPeriodicity,
    onModification          InformationReportCharacteristicsType-OnModification,
    ...
}

InformationReportCharacteristicsType-ReportPeriodicity ::= CHOICE {
    min                 ReportPeriodicity-Scaledmin,
    hours               ReportPeriodicity-Scaledhour,
    ...
}

InformationReportCharacteristicsType-OnModification ::= SEQUENCE {
    information-thresholds        InformationThresholds     OPTIONAL,
    ie-Extensions                 ProtocolExtensionContainer { { InformationReportCharacteristicsType-OnModification-ExtIEs} } OPTIONAL,
   ...
}

InformationReportCharacteristicsType-OnModification-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
InformationThresholds ::= CHOICE {
    dgps                DGPSThresholds,
    ...,
    dGANSSThreshold     DGANSSThreshold
}

InformationExchangeID ::= INTEGER (0..1048575)

InformationType ::= SEQUENCE {
    information-Type-Item       Information-Type-Item,
    gPSInformation              GPS-Information                                         OPTIONAL,
    -- The IE shall be present if the Information Type Item IE indicates "GPS Information".
    iE-Extensions               ProtocolExtensionContainer { { Information-Type-ExtIEs} }       OPTIONAL,
    ...
}

Information-Type-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
-- The following IE shall be present if the Information Type Item IE indicates "GANSS Information"
    { ID id-GANSS-Information     CRITICALITY ignore    EXTENSION GANSS-Information     PRESENCE conditional },
    ...
}

Information-Type-Item ::= ENUMERATED {
    gpsinformation,
    dgpscorrections,
    gpsrxpos,
    ...,
    gANSSInformation,
    dGANSSCorrections,
    gANSS-RX-Pos
}

Initial-DL-DPCH-TimingAdjustment-Allowed ::= ENUMERATED {
    initial-DL-DPCH-TimingAdjustment-Allowed
}

InnerLoopDLPCStatus ::= ENUMERATED {
    active,
    inactive
}

IPDL-Indicator ::= ENUMERATED {
    active,
    inactive
}


IPDL-FDD-Parameters ::= SEQUENCE {
    iP-SpacingFDD                   ENUMERATED{sp5,sp7,sp10,sp15,sp20,sp30,sp40,sp50,...},
    iP-Length                       ENUMERATED{len5, len10},
```

```
    seed                            INTEGER(0..63),
    burstModeParams                 BurstModeParams     OPTIONAL,
    iP-Offset                       INTEGER(0..9),
    iE-Extensions                   ProtocolExtensionContainer { { IPDLFDDParameter-ExtIEs} }   OPTIONAL,
    ...
}

IPDLFDDParameter-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDL-TDD-Parameters ::= SEQUENCE {
    iP-SpacingTDD                   ENUMERATED{sp30,sp40,sp50,sp70,sp100,...},
    iP-Start                        INTEGER(0..4095),
    iP-Slot                         INTEGER(0..14),
    iP-PCCPCH                       ENUMERATED{switchOff-1-Frame,switchOff-2-Frames},
    burstModeParams                 BurstModeParams     OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { IPDLTDDParameter-ExtIEs} }   OPTIONAL,
    ...
}

IPDL-TDD-Parameters-LCR ::= SEQUENCE {
    iP-SpacingTDD                   ENUMERATED{sp30,sp40,sp50,sp70,sp100,...},
    iP-Start                        INTEGER(0..4095),
    iP-Sub                          ENUMERATED{first,second,both},
    burstModeParams                 BurstModeParams     OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { IPDLTDDParameterLCR-ExtIEs} }    OPTIONAL,
    ...
}

IPMulticastIndication ::= SEQUENCE {
    transportLayerAddress           TransportLayerAddress,
    bindingID                       BindingID,
    cFNOffset                       INTEGER(0..255),
    iE-Extensions           ProtocolExtensionContainer { { IPMulticastIndication-ExtIEs} }  OPTIONAL,
    ...
}

IPMulticastIndication-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPMulticastDataBearerIndication ::= BOOLEAN
-- true: IP Multicast used, false: IP Multicast not used

BurstModeParams ::= SEQUENCE {
    burstStart                          INTEGER(0..15),
    burstLength                         INTEGER(10..25),
    burstFreq                           INTEGER(1..16),
    ...
}

IPDLTDDParameter-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

IPDLTDDParameterLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ==========================================
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-- ==========================================
--  K
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-- ==========================================

LimitedPowerIncrease ::= ENUMERATED {
    used,
    not-used
}

Local-Cell-ID ::= INTEGER (0..268435455)

LTGI-Presence ::= BOOLEAN
-- True = the Long Term Grant Indicator shall be used within E-DCH grants

LCRTDD-Uplink-Physical-Channel-Capability ::= SEQUENCE {
    maxTimeslotsPerSubFrame             INTEGER(1..6),
    maxPhysChPerTimeslot                ENUMERATED {one,two,...,three,four},
    iE-Extensions                       ProtocolExtensionContainer { { LCRTDD-Uplink-Physical-Channel-Capability-ExtIEs} } OPTIONAL,
    ...
}

LCRTDD-Uplink-Physical-Channel-Capability-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ==========================================
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-- ==========================================

MAC-DTX-Cycle-2ms ::= ENUMERATED {v1, v4, v5, v8, v10, v16, v20}

MAC-DTX-Cycle-10ms ::= ENUMERATED {v5, v10, v20}

MAC-ehs-Reset-Timer ::= ENUMERATED {v1, v2, v3, v4,...}

MACdPDU-Size ::= INTEGER (1..5000,...)
    -- In case of E-DCH value 8 and values not multiple of 8 shall not be used

MAC-PDU-SizeExtended ::= INTEGER (1..1504,...)
```

```
MAC-Inactivity-Threshold ::= ENUMERATED {v1, v2, v4, v8, v16, v32, v64, v128, v256, v512, infinity}
    -- Unit subframe

MACdPDU-Size-Indexlist ::= SEQUENCE (SIZE (1..maxNrOfMACdPDUIndexes)) OF MACdPDU-Size-IndexItem

MACdPDU-Size-IndexItem ::= SEQUENCE {
    sID                                 SID,
    macdPDU-Size                        MACdPDU-Size,
    iE-Extensions                       ProtocolExtensionContainer { { MACdPDU-Size-IndexItem-ExtIEs} }               OPTIONAL,
    ...
}

MACdPDU-Size-IndexItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MACdPDU-Size-Indexlist-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfMACdPDUIndexes)) OF MACdPDU-Size-IndexItem-to-Modify

MACdPDU-Size-IndexItem-to-Modify ::= SEQUENCE {
    sID                                 SID,
    macdPDU-Size                        MACdPDU-Size,
    iE-Extensions                       ProtocolExtensionContainer { { MACdPDU-Size-IndexItem-to-Modify-ExtIEs} }     OPTIONAL,
    ...
}

MACdPDU-Size-IndexItem-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MACesGuaranteedBitRate ::= INTEGER (0..16777215,...,16777216..256000000)

MACeReset-Indicator ::= ENUMERATED {mACeReset}

MAChsGuaranteedBitRate ::= INTEGER (0..16777215,...,16777216..256000000)

MAChsReorderingBufferSize-for-RLC-UM ::= INTEGER (0..300,...)
-- Unit kBytes

MAC-hsWindowSize        ::= ENUMERATED {v4, v6, v8, v12, v16, v24, v32,...}
-- For 1.28Mcps TDD when TSN length is configured to 9bits, ENUMERATED (32, 64, 96, 128, 160, 192, 256,...)

MaximumDL-PowerCapability ::=  INTEGER(0..500)
-- Unit dBm, Range 0dBm .. 50dBm, Step +0.1dB

Max-Bits-MACe-PDU-non-scheduled ::= INTEGER(1..maxNrOfBits-MACe-PDU-non-scheduled)

Maximum-Number-of-Retransmissions-For-E-DCH ::= INTEGER (0..15)

Maximum-Target-ReceivedTotalWideBandPower-LCR ::= INTEGER (0..621)
-- mapping as for RTWP measurement value, as specified in [23]

MaximumTransmissionPower ::=  INTEGER(0..500)
-- Unit dBm, Range 0dBm .. 50dBm, Step +0.1dB
```

```
MaxNrOfUL-DPDCHs ::= INTEGER (1..6)

MaxPRACH-MidambleShifts ::= ENUMERATED {
    shift4,
    shift8,
    ...,
    shift16
}

Max-Set-E-DPDCHs ::= ENUMERATED {
    vN256, vN128, vN64, vN32, vN16, vN8, vN4, v2xN4, v2xN2, v2xN2plus2xN4,
    ...,
    v2xM2plus2xM4
    }
-- Values related to [8]

Max-UE-DTX-Cycle ::= ENUMERATED {
    v5, v10, v20, v40, v64, v80, v128, v160,
    ...
    }


MBMS-Capability ::= ENUMERATED{
   mbms-capable,
   mbms-non-capable
}


MeasurementFilterCoefficient ::= ENUMERATED {k0, k1, k2, k3, k4, k5, k6, k7, k8, k9, k11, k13, k15, k17, k19,...}
-- Measurement Filter Coefficient to be used for measurement

MeasurementID ::= INTEGER (0..1048575)

Measurement-Power-Offset ::= INTEGER(-12 .. 26)
-- Actual value = IE value * 0.5

MeasurementRecoveryBehavior ::= NULL

MeasurementRecoveryReportingIndicator ::= NULL

MeasurementRecoverySupportIndicator ::= NULL

MessageStructure ::= SEQUENCE (SIZE (1..maxNrOfLevels)) OF
    SEQUENCE {
        iE-ID                   ProtocolIE-ID,
        repetitionNumber        RepetitionNumber1       OPTIONAL,
        iE-Extensions           ProtocolExtensionContainer { {MessageStructure-ExtIEs} } OPTIONAL,
        ...
    }

MessageStructure-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
MICH-CFN ::= INTEGER (0..4095)

MICH-Mode ::= ENUMERATED {
    v18,
    v36,
    v72,
    v144,
    ...
}

MidambleConfigurationLCR ::=    ENUMERATED {v2, v4, v6, v8, v10, v12, v14, v16, ...}

MidambleConfigurationBurstType1And3 ::=     ENUMERATED {v4, v8, v16}

MidambleConfigurationBurstType2 ::=     ENUMERATED {v3, v6}

MidambleShiftAndBurstType ::=       CHOICE {
    type1                               SEQUENCE {
        midambleConfigurationBurstType1And3 MidambleConfigurationBurstType1And3,
        midambleAllocationMode              CHOICE {
            defaultMidamble                     NULL,
            commonMidamble                      NULL,
            ueSpecificMidamble                  MidambleShiftLong,
            ...
        },
    ...
    },
    type2                               SEQUENCE {
        midambleConfigurationBurstType2     MidambleConfigurationBurstType2,
        midambleAllocationMode              CHOICE {
            defaultMidamble                     NULL,
            commonMidamble                      NULL,
            ueSpecificMidamble                  MidambleShiftShort,
            ...
        },
        ...
    },
    type3                               SEQUENCE {
        midambleConfigurationBurstType1And3 MidambleConfigurationBurstType1And3,
        midambleAllocationMode              CHOICE {
            defaultMidamble                     NULL,
            ueSpecificMidamble                  MidambleShiftLong,
        ...
        },
        ...
    },
    ...
}

MidambleShiftLong ::=               INTEGER (0..15)

MidambleShiftShort ::=              INTEGER (0..5)
```

```
MidambleShiftLCR ::= SEQUENCE {
    midambleAllocationMode      MidambleAllocationMode,
    midambleShift               MidambleShiftLong       OPTIONAL,
    -- The IE shall be present if the Midamble Allocation Mode IE is set to "UE specific midamble".
    midambleConfigurationLCR        MidambleConfigurationLCR,
    iE-Extensions               ProtocolExtensionContainer { {MidambleShiftLCR-ExtIEs} }        OPTIONAL,
    ...
    }

MidambleAllocationMode ::= ENUMERATED {
    defaultMidamble,
    commonMidamble,
    uESpecificMidamble,
    ...
    }

MidambleShiftLCR-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MidambleShiftAndBurstType768 ::=        CHOICE {
    type1                               SEQUENCE {
        midambleConfigurationBurstType1And3     MidambleConfigurationBurstType1And3,
        midambleAllocationMode              CHOICE {
            defaultMidamble                     NULL,
            commonMidamble                      NULL,
            ueSpecificMidamble                  MidambleShiftLong,
            ...
        },
        ...
    },
    type2                               SEQUENCE {
        midambleConfigurationBurstType2-768     MidambleConfigurationBurstType2-768,
        midambleAllocationMode              CHOICE {
            defaultMidamble                     NULL,
            commonMidamble                      NULL,
            ueSpecificMidamble                  MidambleShiftShort768,
            ...
        },
        ...
    },
    type3                               SEQUENCE {
        midambleConfigurationBurstType1And3 MidambleConfigurationBurstType1And3,
        midambleAllocationMode          CHOICE {
            defaultMidamble                     NULL,
            ueSpecificMidamble                  MidambleShiftLong,
            ...
        },
        ...
    },
    ...
}

MidambleConfigurationBurstType2-768 ::=     ENUMERATED {v4, v8}
```

```
MidambleShiftShort768 ::=               INTEGER (0..7)

MIMO-ActivationIndicator ::= NULL

MIMO-Capability ::= ENUMERATED {
    mimo-capable,
    mimo-non-capable
}


MIMO-Mode-Indicator ::= ENUMERATED {
    activate,
    deactivate
}

MIMO-N-M-Ratio ::= ENUMERATED {v1-2, v2-3, v3-4, v4-5, v5-6, v6-7, v7-8, v8-9, v9-10, v1-1,...}

MIMO-PilotConfiguration ::= CHOICE {
    primary-and-secondary-CPICH             CommonPhysicalChannelID,
    normal-and-diversity-primary-CPICH      NULL,
    ...
}

MinimumDL-PowerCapability ::=  INTEGER(0..800)
-- Unit dBm, Range -30dBm .. 50dBm, Step +0.1dB

MinSpreadingFactor ::= ENUMERATED {
        v4,
        v8,
        v16,
        v32,
        v64,
        v128,
        v256,
        v512
}
--  TDD Mapping scheme for the minimum spreading factor 1 and 2: "256" means 1, "512" means 2

Modification-Period ::= ENUMERATED { v1280, v2560, v5120, v10240,...}

ModifyPriorityQueue ::= CHOICE {
    addPriorityQueue            PriorityQueue-InfoItem-to-Add,
    modifyPriorityQueue         PriorityQueue-InfoItem-to-Modify,
    deletePriorityQueue         PriorityQueue-Id,
    ...
}

Modulation ::= ENUMERATED {
    qPSK,
    eightPSK,
    -- 8PSK denotes 16QAM for S-CCPCH
    ...
}
```

```
MinUL-ChannelisationCodeLength ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    v64,
    v128,
    v256,
    ...
}

MultiplexingPosition ::= ENUMERATED {
    fixed,
    flexible
}

MAChs-ResetIndicator ::= ENUMERATED{
    mAChs-NotReset
}

ModulationMBSFN ::= ENUMERATED {
    qPSK,
    sixteenQAM,
    ...
}

MBSFN-CPICH-secondary-CCPCH-power-offset ::= INTEGER(-11..4,...)
-- Unit dB, Step 1 dB, Range -11..4 dB.

ModulationPO-MBSFN ::= CHOICE {
    qPSK                NULL,
    sixteenQAM          MBSFN-CPICH-secondary-CCPCH-power-offset,
    ...
}
MBSFN-Only-Mode-Indicator ::= ENUMERATED {
    mBSFN-Only-Mode
}

MBSFN-Only-Mode-Capability ::= ENUMERATED {
    mBSFN-Only-Mode-capable,
    mBSFN-Only-Mode-non-capable
}

Multicarrier-Number ::= INTEGER (1..maxHSDPAFrequency)

MultipleFreq-HSPDSCH-InformationList-ResponseTDDLCR ::= SEQUENCE (SIZE (1.. maxHSDPAFrequency-1)) OF MultipleFreq-HSPDSCH-InformationItem-
ResponseTDDLCR
--Includes the 2nd through the max number of frequency repetitions.

MultipleFreq-HSPDSCH-InformationItem-ResponseTDDLCR ::= SEQUENCE{
    hsSCCH-Specific-Information-ResponseTDDLCR      HSSCCH-Specific-InformationRespListTDDLCR   OPTIONAL,
    hARQ-MemoryPartitioning                         HARQ-MemoryPartitioning                     OPTIONAL,
    uARFCN                                          UARFCN, -- This is the UARFCN for the second and beyond Frequency repetition.
```

```
    iE-Extensions                                   ProtocolExtensionContainer { { MultipleFreq-HSPDSCH-InformationItem-ResponseTDDLCR-ExtIEs } }
        OPTIONAL,
    ...
}

MultipleFreq-HSPDSCH-InformationItem-ResponseTDDLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}
-- ========================================
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-- ========================================

Nack-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [9] subclause 4.2.1

NCyclesPerSFNperiod ::= ENUMERATED {
    v1,
    v2,
    v4,
    v8,
    ...,
    v16,
    v32,
    v64
}

NRepetitionsPerCyclePeriod ::= INTEGER (2..10)

N-INSYNC-IND ::= INTEGER (1..256)

N-OUTSYNC-IND ::= INTEGER (1..256)

NeighbouringCellMeasurementInformation ::= SEQUENCE (SIZE (1..maxNrOfMeasNCell)) OF
        CHOICE {
                neighbouringFDDCellMeasurementInformation       NeighbouringFDDCellMeasurementInformation, -- FDD only
                neighbouringTDDCellMeasurementInformation       NeighbouringTDDCellMeasurementInformation,
                -- Applicable to 3.84Mcps TDD only
                ...,
                extension-neighbouringCellMeasurementInformation    Extension-neighbouringCellMeasurementInformation
            }

Extension-neighbouringCellMeasurementInformation    ::= ProtocolIE-Single-Container {{ Extension-neighbouringCellMeasurementInformationIE }}

Extension-neighbouringCellMeasurementInformationIE NBAP-PROTOCOL-IES ::= {
    { ID id-neighbouringTDDCellMeasurementInformationLCR    CRITICALITY reject  TYPE NeighbouringTDDCellMeasurementInformationLCR PRESENCE
mandatory }|    -- Applicable to 1.28Mcps TDD only
    { ID id-neighbouringTDDCellMeasurementInformation768    CRITICALITY reject  TYPE NeighbouringTDDCellMeasurementInformation768 PRESENCE
mandatory },    -- Applicable to 7.68Mcps TDD only
    ...
}

NeighbouringFDDCellMeasurementInformation ::= SEQUENCE {
    uC-Id                               UC-Id,
    uARFCN                              UARFCN,
```

```
    primaryScramblingCode               PrimaryScramblingCode,
    iE-Extensions                       ProtocolExtensionContainer { { NeighbouringFDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    ...
}

NeighbouringFDDCellMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NeighbouringTDDCellMeasurementInformation ::= SEQUENCE {
    uC-Id                               UC-Id,
    uARFCN                              UARFCN,
    cellParameterID                     CellParameterID,
    timeSlot                            TimeSlot                        OPTIONAL,
    midambleShiftAndBurstType           MidambleShiftAndBurstType       OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    ...
}

NeighbouringTDDCellMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NeighbouringTDDCellMeasurementInformationLCR ::= SEQUENCE {
    uC-Id                               UC-Id,
    uARFCN                              UARFCN,
    cellParameterID                     CellParameterID,
    timeSlotLCR                         TimeSlotLCR             OPTIONAL,
    midambleShiftLCR                    MidambleShiftLCR        OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs} } OPTIONAL,
    ...
}

NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NeighbouringTDDCellMeasurementInformation768 ::= SEQUENCE {
    uC-Id                               UC-Id,
    uARFCN                              UARFCN,
    cellParameterID                     CellParameterID,
    timeSlot                            TimeSlot                        OPTIONAL,
    midambleShiftAndBurstType768        MidambleShiftAndBurstType768        OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformation768Item-ExtIEs} } OPTIONAL,
    ...
}

NeighbouringTDDCellMeasurementInformation768Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
NI-Information ::= SEQUENCE (SIZE (1..maxNrOfNIs)) OF Notification-Indicator

Notification-Indicator ::= INTEGER (0..65535)


NodeB-CommunicationContextID ::= INTEGER (0..1048575)

NotificationIndicatorLength ::= ENUMERATED {
    v2,
    v4,
    v8,
    ...
}


NumberOfReportedCellPortions ::= INTEGER (1..maxNrOfCellPortionsPerCell,...)

Number-of-PCCH-transmission ::= INTEGER (1..5)

NSubCyclesPerCyclePeriod ::= INTEGER (1..16,...)

N-E-UCCH ::= INTEGER (1..12)

N-E-UCCHLCR ::= INTEGER (1..8)

Number-Of-Supported-Carriers  ::= ENUMERATED {
    one-one-carrier,
    one-three-carrier,
    three-three-carrier,
    one-six-carrier,
    three-six-carrier,
    six-six-carrier,
    ...
}

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PagingIndicatorLength ::= ENUMERATED {
    v2,
    v4,
    v8,
    ...
}

Paging-MACFlow-ID ::= INTEGER (0..maxNrOfPagingMACFlow-1)


PayloadCRC-PresenceIndicator ::= ENUMERATED {
```

```
    cRC-Included,
    cRC-NotIncluded,
    ...
}

PCCPCH-Power ::= INTEGER (-150..400,...)
-- PCCPCH-power = power * 10
-- If power <= -15 PCCPCH shall be set to -150
-- If power >= 40 PCCPCH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step +0.1dB

PDSCH-ID ::= INTEGER (0..255)

PDSCH-ID768 ::= INTEGER (0..511)

PDSCHSet-ID ::= INTEGER (0..255)

PICH-Mode ::= ENUMERATED {
    v18,
    v36,
    v72,
    v144,
    ...
}

PICH-Power ::= INTEGER (-10..5)
-- Unit dB, Range -10dB .. +5dB, Step +1dB

Paging-MACFlows-to-DeleteFDD ::= SEQUENCE (SIZE (1.. maxNrOfPagingMACFlow)) OF Paging-MACFlows-to-DeleteFDD-Item

Paging-MACFlows-to-DeleteFDD-Item ::= SEQUENCE {
    paging-MACFlow-ID                       Paging-MACFlow-ID,
    iE-Extensions                           ProtocolExtensionContainer { { Paging-MACFlows-to-DeleteFDD-Item-ExtIEs} }
    OPTIONAL,
    ...
}

Paging-MACFlows-to-DeleteFDD-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


Paging-MACFlow-Specific-Information ::= SEQUENCE (SIZE (1.. maxNrOfPagingMACFlow)) OF Paging-MAC-Flow-Specific-Information-Item

Paging-MAC-Flow-Specific-Information-Item ::= SEQUENCE {
    paging-MACFlow-Id                       Paging-MACFlow-ID,
    hSDPA-associated-PICH-Info              HSDPA-Associated-PICH-Information,
    bindingID                               BindingID                                   OPTIONAL,
    transportLayerAddress                   TransportLayerAddress                       OPTIONAL,
    tnl-qos                                 TnlQos                                      OPTIONAL,
    toAWS                                   ToAWS,
    toAWE                                   ToAWE,
    paging-MACFlow-PriorityQueue-Information    Paging-MACFlow-PriorityQueue-Information    OPTIONAL,
```

```
    iE-Extensions                                   ProtocolExtensionContainer { { Paging-MAC-Flow-Specific-Information-Item-ExtIEs } }
    OPTIONAL,
    ...
}

Paging-MAC-Flow-Specific-Information-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Paging-MACFlow-PriorityQueue-Information  ::= SEQUENCE (SIZE (1..maxNrOfpagingMACQueues)) OF Paging-MACFlow-PriorityQueue-Item

Paging-MACFlow-PriorityQueue-Item  ::= SEQUENCE {
    priority-Queue-Information-for-Enhanced-PCH     Priority-Queue-Information-for-Enhanced-FACH-PCH,
        iE-Extensions                                   ProtocolExtensionContainer { { Paging-MACFlow-PriorityQueue-Item-ExtIEs } }     OPTIONAL,
    ...
}

Paging-MACFlow-PriorityQueue-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


PLCCHsequenceNumber ::= INTEGER (0..14)

PLCCHinformation ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    sequenceNumber                          PLCCHsequenceNumber,
    iE-Extensions                           ProtocolExtensionContainer { { PLCCHinformation-ExtIEs} }                 OPTIONAL,
    ...
}

PLCCHinformation-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerAdjustmentType ::= ENUMERATED {
    none,
    common,
    individual
}

PowerOffset ::= INTEGER (0..24)
-- PowerOffset = offset * 0.25
-- Unit dB, Range 0dB .. +6dB, Step +0.25dB

PowerRaiseLimit ::= INTEGER (0..10)

PRACH-Midamble ::= ENUMERATED {
    inverted,
    direct,
    ...
}

PRC ::= INTEGER (-2047..2047)
```

```
--pseudo range correction; scaling factor 0.32 meters

PRCDeviation ::= ENUMERATED {
   one,
   two,
   five,
   ten,
   ...
}

PreambleSignatures ::= BIT STRING {
                                    signature15(0),
                                    signature14(1),
                                    signature13(2),
                                    signature12(3),
                                    signature11(4),
                                    signature10(5),
                                    signature9(6),
                                    signature8(7),
                                    signature7(8),
                                    signature6(9),
                                    signature5(10),
                                    signature4(11),
                                    signature3(12),
                                    signature2(13),
                                    signature1(14),
                                    signature0(15)
                                    } (SIZE (16))

PreambleThreshold ::= INTEGER (0..72)
-- 0= -36.0dB, 1= -35.5dB, ... , 72= 0.0dB

PredictedSFNSFNDeviationLimit ::=INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

PredictedTUTRANGPSDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

Pre-emptionCapability ::= ENUMERATED {
    shall-not-trigger-pre-emption,
    may-trigger-pre-emption
}

Pre-emptionVulnerability ::= ENUMERATED {
    not-pre-emptable,
    pre-emptable
}

PrimaryCPICH-Power ::= INTEGER(-100..500)
-- step 0.1 (Range –10.0..50.0) Unit is dBm

Primary-CPICH-Usage-for-Channel-Estimation ::= ENUMERATED {
   primary-CPICH-may-be-used,
   primary-CPICH-shall-not-be-used
```

```
}

PrimaryScramblingCode ::= INTEGER (0..511)

PriorityLevel               ::= INTEGER (0..15)
-- 0 = spare, 1 = highest priority, ...14 = lowest priority and 15 = no priority

Priority-Queue-Information-for-Enhanced-FACH-PCH ::= SEQUENCE {
    priorityQueue-Id                    PriorityQueue-Id,
    schedulingPriorityIndicator         SchedulingPriorityIndicator,
    t1                                  T1,
    mAC-ehs-Reset-Timer                 MAC-ehs-Reset-Timer,
    -- shall be ignored in case of Enhanced PCH
    discardTimer                        DiscardTimer                            OPTIONAL,
    mAC-hsWindowSize                    MAC-hsWindowSize,
    maximum-MACcPDU-Size                MAC-PDU-SizeExtended,
    iE-Extensions                       ProtocolExtensionContainer { { Priority-Queue-Information-for-Enhanced-FACH-PCH-ExtIEs } }      OPTIONAL,
    ...
}

Priority-Queue-Information-for-Enhanced-FACH-PCH-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PriorityQueue-Id ::= INTEGER (0..maxNrOfPriorityQueues-1)

PriorityQueue-InfoList ::= SEQUENCE (SIZE (1..maxNrOfPriorityQueues)) OF PriorityQueue-InfoItem

PriorityQueue-InfoItem ::= SEQUENCE {
    priorityQueueId                     PriorityQueue-Id,
    associatedHSDSCH-MACdFlow           HSDSCH-MACdFlow-ID,
    schedulingPriorityIndicator         SchedulingPriorityIndicator,
    t1                                  T1,
    discardTimer                        DiscardTimer                OPTIONAL,
    mAC-hsWindowSize                    MAC-hsWindowSize,
    mAChsGuaranteedBitRate              MAChsGuaranteedBitRate                                  OPTIONAL,
    macdPDU-Size-Index                  MACdPDU-Size-Indexlist,
    rLC-Mode                            RLC-Mode,
    iE-Extensions                       ProtocolExtensionContainer { { PriorityQueue-InfoItem-ExtIEs} }         OPTIONAL,
    ...
}

PriorityQueue-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MaximumMACdPDU-SizeExtended     CRITICALITY reject      EXTENSION   MAC-PDU-SizeExtended            PRESENCE optional},
    ...
}

PriorityQueue-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfPriorityQueues)) OF ModifyPriorityQueue

PriorityQueue-InfoItem-to-Add ::= SEQUENCE {
    priorityQueueId                     PriorityQueue-Id,
    associatedHSDSCH-MACdFlow           HSDSCH-MACdFlow-ID,
    schedulingPriorityIndicator         SchedulingPriorityIndicator,
    t1                                  T1,
```

```
    discardTimer                        DiscardTimer                                                    OPTIONAL,
    mAC-hsWindowSize                    MAC-hsWindowSize,
    mAChsGuaranteedBitRate              MAChsGuaranteedBitRate                                          OPTIONAL,
    macdPDU-Size-Index                  MACdPDU-Size-Indexlist,
    rLC-Mode                            RLC-Mode,
    iE-Extensions                       ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Add-ExtIEs} }      OPTIONAL,
    ...
}

PriorityQueue-InfoItem-to-Add-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MaximumMACdPDU-SizeExtended     CRITICALITY reject      EXTENSION   MAC-PDU-SizeExtended                PRESENCE optional},
    ...
}

PriorityQueue-InfoItem-to-Modify ::= SEQUENCE {
    priorityQueueId                     PriorityQueue-Id,
    schedulingPriorityIndicator         SchedulingPriorityIndicator                                     OPTIONAL,
    t1                                  T1                                                              OPTIONAL,
    discardTimer                        DiscardTimer                                                    OPTIONAL,
    mAC-hsWindowSize                    MAC-hsWindowSize                                                OPTIONAL,
    mAChsGuaranteedBitRate              MAChsGuaranteedBitRate                                          OPTIONAL,
    macdPDU-Size-Index-to-Modify        MACdPDU-Size-Indexlist-to-Modify                                OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-ExtIEs} }     OPTIONAL,
    ...
}

PriorityQueue-InfoItem-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MaximumMACdPDU-SizeExtended     CRITICALITY reject      EXTENSION   MAC-PDU-SizeExtended                PRESENCE optional},
    ...
}

PriorityQueue-InfoList-to-Modify-Unsynchronised ::= SEQUENCE (SIZE (1..maxNrOfPriorityQueues)) OF PriorityQueue-InfoItem-to-Modify-Unsynchronised

PriorityQueue-InfoItem-to-Modify-Unsynchronised ::= SEQUENCE {
    priorityQueueId                     PriorityQueue-Id,
    schedulingPriorityIndicator         SchedulingPriorityIndicator                                                 OPTIONAL,
    discardTimer                        DiscardTimer                                                                OPTIONAL,
    mAChsGuaranteedBitRate              MAChsGuaranteedBitRate                                                      OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-Unsynchronised-ExtIEs} }     OPTIONAL,
    ...
}

PriorityQueue-InfoItem-to-Modify-Unsynchronised-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCCPCH-RSCP ::= INTEGER (0..91)
-- Mapping of non-negative values according to [23]

PrimaryCCPCH-RSCP-Delta ::= INTEGER (-5..-1,...)
-- Mapping of negative values according to [23]

PropagationDelay ::= INTEGER (0..255)
-- Unit: chips, step size 3 chips
```

```
-- example: 0 = 0chip, 1 = 3chips

PRXdes-base ::= INTEGER (-112..-50)
-- Unit: dBm, step size 1


SCH-TimeSlot ::= INTEGER (0..6)

PunctureLimit ::= INTEGER (0..15)
-- 0: 40%; 1: 44%; ... 14: 96%; 15: 100%
-- 0 is not applicable for E-DPCH

PUSCH-ID ::= INTEGER (0..255)

PUSCHSet-ID ::= INTEGER (0..255)

-- ==========================================
--  Q
-- ==========================================

QE-Selector ::= ENUMERATED {
    selected,
    non-selected
}

-- ==========================================
--  R
-- ==========================================

RACH-Measurement-Result ::= ENUMERATED {
    cpich-EcNo,
    cpich-RSCP,
    pathloss,
    ...
}

RACH-SlotFormat ::= ENUMERATED {
    v0,
    v1,
    v2,
    v3,
    ...
}

RACH-SubChannelNumbers ::= BIT STRING {
                                        subCh11(0),
                                        subCh10(1),
                                        subCh9(2),
                                        subCh8(3),
                                        subCh7(4),
                                        subCh6(5),
                                        subCh5(6),
                                        subCh4(7),
                                        subCh3(8),
```

```
                                    subCh2(9),
                                    subCh1(10),
                                    subCh0(11)
                                    } (SIZE (12))

RL-Specific-DCH-Info ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF RL-Specific-DCH-Info-Item

RL-Specific-DCH-Info-Item ::= SEQUENCE {
    dCH-id                  DCH-ID,
    bindingID               BindingID                                                   OPTIONAL,
    transportlayeraddress   TransportLayerAddress                                       OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { RL-Specific-DCH-Info-Item-ExtIEs} }  OPTIONAL,
    ...
}

RL-Specific-DCH-Info-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TransportBearerNotRequestedIndicator    CRITICALITY ignore  EXTENSION TransportBearerNotRequestedIndicator   PRESENCE optional }, --
FDD only
    ...
}

RL-Specific-E-DCH-Info ::= SEQUENCE {
    rL-Specific-E-DCH-Information       RL-Specific-E-DCH-Information,
    e-AGCH-PowerOffset                  E-AGCH-PowerOffset                          OPTIONAL,
    e-RGCH-PowerOffset                  E-RGCH-PowerOffset                          OPTIONAL,
    e-HICH-PowerOffset                  E-HICH-PowerOffset                          OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { RL-Specific-E-DCH-Info-Item-ExtIEs} }  OPTIONAL,
    ...
}

RL-Specific-E-DCH-Info-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


RL-Specific-E-DCH-Information ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF RL-Specific-E-DCH-Information-Item

RL-Specific-E-DCH-Information-Item ::= SEQUENCE {
    e-DCH-MACdFlow-ID       E-DCH-MACdFlow-ID,
    bindingID               BindingID                                   OPTIONAL,
    transportlayeraddress   TransportLayerAddress                       OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { RL-Specific-E-DCH-Information-Item-ExtIEs} } OPTIONAL,
    ...
}

RL-Specific-E-DCH-Information-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Range-Correction-Rate ::= INTEGER (-127..127)
-- scaling factor 0.032 m/s

Reference-ReceivedTotalWideBandPower ::= INTEGER (0..621)
-- mapping as for RTWP measurement value, as specified in [22]
```

```
Reference-ReceivedTotalWideBandPowerReporting::= ENUMERATED {
    reference-ReceivedTotalWideBandPower-Requested
}

Reference-ReceivedTotalWideBandPowerSupportIndicator::= ENUMERATED {
    indication-of-Reference-ReceivedTotalWideBandPower-supported
}

ReferenceClockAvailability ::= ENUMERATED {
    available,
    notAvailable
}

ReferenceSFNoffset ::= INTEGER (0..255)

Reference-E-TFCI-Information ::= SEQUENCE (SIZE (1..maxNrOfRefETFCIs)) OF Reference-E-TFCI-Information-Item

Reference-E-TFCI-Information-Item ::= SEQUENCE {
    reference-E-TFCI                E-TFCI,
    -- The following IE shall be ignored if id-Ext-Reference-E-TFCI-PO is present in Reference-E-TFCI-Information-Item-ExtIEs
    reference-E-TFCI-PO             Reference-E-TFCI-PO,
    iE-Extensions                   ProtocolExtensionContainer { { Reference-E-TFCI-Information-Item-ExtIEs} }     OPTIONAL,
    ...
}

Reference-E-TFCI-Information-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    -- The following IE shall be present if the ref E-TFCI power offset to be signalled exceeds maxNrOfRefETFCI-PO-QUANTSTEPs
    { ID id-Ext-Reference-E-TFCI-PO     CRITICALITY reject      EXTENSION   Ext-Reference-E-TFCI-PO                   PRESENCE optional},
    ...
}

Reference-E-TFCI-PO ::= INTEGER (0.. maxNrOfRefETFCI-PO-QUANTSTEPs)

RepetitionLength ::= INTEGER (1..63)

RepetitionPeriod ::= ENUMERATED {
    v1,
    v2,
    v4,
    v8,
    v16,
    v32,
    v64,
    ...
}

RepetitionNumber0 ::= INTEGER (0..255)

RepetitionNumber1 ::= INTEGER (1..256)

RefTFCNumber ::= INTEGER (0..3)
```

```
ReportCharacteristics ::= CHOICE {
    onDemand            NULL,
    periodic            ReportCharacteristicsType-ReportPeriodicity,
    event-a             ReportCharacteristicsType-EventA,
    event-b             ReportCharacteristicsType-EventB,
    event-c             ReportCharacteristicsType-EventC,
    event-d             ReportCharacteristicsType-EventD,
    event-e             ReportCharacteristicsType-EventE,
    event-f             ReportCharacteristicsType-EventF,
    ...,
    extension-ReportCharacteristics     Extension-ReportCharacteristics
}

Extension-ReportCharacteristics ::= ProtocolIE-Single-Container {{ Extension-ReportCharacteristicsIE }}

Extension-ReportCharacteristicsIE NBAP-PROTOCOL-IES ::= {
    { ID id-ReportCharacteristicsType-OnModification    CRITICALITY reject  TYPE ReportCharacteristicsType-OnModification    PRESENCE mandatory }
}

ReportCharacteristicsType-EventA ::= SEQUENCE {
    measurementThreshold            ReportCharacteristicsType-MeasurementThreshold,
    measurementHysteresisTime       ReportCharacteristicsType-ScaledMeasurementHysteresisTime                       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-EventA-ExtIEs} }       OPTIONAL,
    ...
    }

ReportCharacteristicsType-EventA-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventB ::= SEQUENCE {
    measurementThreshold            ReportCharacteristicsType-MeasurementThreshold,
    measurementHysteresisTime       ReportCharacteristicsType-ScaledMeasurementHysteresisTime                       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-EventB-ExtIEs} }       OPTIONAL,
    ...
    }

ReportCharacteristicsType-EventB-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventC ::= SEQUENCE {
    measurementIncreaseThreshold    ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime           ReportCharacteristicsType-ScaledMeasurementChangeTime,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-EventC-ExtIEs} }       OPTIONAL,
    ...
    }

ReportCharacteristicsType-EventC-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventD ::= SEQUENCE {
    measurementDecreaseThreshold    ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold,
```

```
    measurementChangeTime           ReportCharacteristicsType-ScaledMeasurementChangeTime,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-EventD-ExtIEs} }         OPTIONAL,
    ...
    }

ReportCharacteristicsType-EventD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventE ::= SEQUENCE {
    measurementThreshold1           ReportCharacteristicsType-MeasurementThreshold,
    measurementThreshold2           ReportCharacteristicsType-MeasurementThreshold              OPTIONAL,
    measurementHysteresisTime       ReportCharacteristicsType-ScaledMeasurementHysteresisTime   OPTIONAL,
    reportPeriodicity               ReportCharacteristicsType-ReportPeriodicity                 OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-EventE-ExtIEs} }         OPTIONAL,
    ...
    }

ReportCharacteristicsType-EventE-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventF ::= SEQUENCE {
    measurementThreshold1           ReportCharacteristicsType-MeasurementThreshold,
    measurementThreshold2           ReportCharacteristicsType-MeasurementThreshold              OPTIONAL,
    measurementHysteresisTime       ReportCharacteristicsType-ScaledMeasurementHysteresisTime   OPTIONAL,
    reportPeriodicity               ReportCharacteristicsType-ReportPeriodicity                 OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-EventF-ExtIEs} }         OPTIONAL,
    ...
    }

ReportCharacteristicsType-EventF-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-OnModification ::= SEQUENCE {
    measurementThreshold            ReportCharacteristicsType-MeasurementThreshold,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-OnModification-ExtIEs} }    OPTIONAL,
        ...
    }

ReportCharacteristicsType-OnModification-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold ::= CHOICE {
    received-total-wide-band-power                      Received-total-wide-band-power-Value-IncrDecrThres,
    transmitted-carrier-power       Transmitted-Carrier-Power-Value,
    acknowledged-prach-preambles            Acknowledged-PRACH-preambles-Value,
    uL-TimeslotISCP                 UL-TimeslotISCP-Value-IncrDecrThres,
    sir                         SIR-Value-IncrDecrThres,
    sir-error                   SIR-Error-Value-IncrDecrThres,
    transmitted-code-power          Transmitted-Code-Power-Value-IncrDecrThres,
    rscp                            RSCP-Value-IncrDecrThres,
```

```
    round-trip-time                 Round-Trip-Time-IncrDecrThres,
    notUsed-1-acknowledged-PCPCH-access-preambles       NULL,
    notUsed-2-detected-PCPCH-access-preambles           NULL,
    ...,
    extension-ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold        Extension-ReportCharacteristicsType-
MeasurementIncreaseDecreaseThreshold
}

Extension-ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold    ::= ProtocolIE-Single-Container {{ Extension-ReportCharacteristicsType-
MeasurementIncreaseDecreaseThresholdIE }}

Extension-ReportCharacteristicsType-MeasurementIncreaseDecreaseThresholdIE NBAP-PROTOCOL-IES ::= {
{ ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmission           CRITICALITY reject  TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue PRESENCE mandatory}|
{ ID id-Transmitted-Carrier-Power-For-CellPortion       CRITICALITY reject  TYPE Transmitted-Carrier-Power-Value    PRESENCE mandatory }|
{ ID id-Received-total-wide-band-power-For-CellPortion  CRITICALITY reject  TYPE Received-total-wide-band-power-Value-IncrDecrThres     PRESENCE
mandatory }|
{ ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortion    CRITICALITY reject   TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue      PRESENCE mandatory }|
{ ID id-UpPTSInterferenceValue      CRITICALITY reject  TYPE    UpPTSInterferenceValue      PRESENCE mandatory }|
{ ID id-Received-Scheduled-EDCH-Power-Share     CRITICALITY reject  TYPE RSEPS-Value-IncrDecrThres                     PRESENCE mandatory }|
{ ID id-Received-Scheduled-EDCH-Power-Share-For-CellPortion CRITICALITY reject  TYPE RSEPS-Value-IncrDecrThres        PRESENCE mandatory }
}

ReportCharacteristicsType-MeasurementThreshold ::= CHOICE {
    received-total-wide-band-power                          Received-total-wide-band-power-Value,
    transmitted-carrier-power       Transmitted-Carrier-Power-Value,
    acknowledged-prach-preambles            Acknowledged-PRACH-preambles-Value,
    uL-TimeslotISCP                 UL-TimeslotISCP-Value,
    sir                         SIR-Value,
    sir-error                   SIR-Error-Value,
    transmitted-code-power          Transmitted-Code-Power-Value,
    rscp                            RSCP-Value,
    rx-timing-deviation             Rx-Timing-Deviation-Value,
    round-trip-time                 Round-Trip-Time-Value,
    notUsed-1-acknowledged-PCPCH-access-preambles       NULL,
    notUsed-2-detected-PCPCH-access-preambles           NULL,
    ...,
    extension-ReportCharacteristicsType-MeasurementThreshold        Extension-ReportCharacteristicsType-MeasurementThreshold
}

Extension-ReportCharacteristicsType-MeasurementThreshold    ::= ProtocolIE-Single-Container {{ Extension-ReportCharacteristicsType-
MeasurementThresholdIE }}

Extension-ReportCharacteristicsType-MeasurementThresholdIE NBAP-PROTOCOL-IES ::= {
    { ID id-TUTRANGPSMeasurementThresholdInformation    CRITICALITY reject  TYPE TUTRANGPSMeasurementThresholdInformation   PRESENCE mandatory }|
    { ID id-SFNSFNMeasurementThresholdInformation       CRITICALITY reject  TYPE SFNSFNMeasurementThresholdInformation      PRESENCE mandatory }|
    { ID id-Rx-Timing-Deviation-Value-LCR               CRITICALITY reject  TYPE Rx-Timing-Deviation-Value-LCR              PRESENCE mandatory}|
    { ID id-HS-SICH-Reception-Quality-Measurement-Value CRITICALITY reject  TYPE HS-SICH-Reception-Quality-Measurement-Value PRESENCE mandatory}|
    -- For 1.28Mcps TDD, used when the Measurement Threshold Value for HS-SICH Reception Quality are less than or equal to 20
    { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmission CRITICALITY reject    TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue PRESENCE mandatory}|
    { ID id-HS-DSCHRequiredPowerValue                   CRITICALITY reject  TYPE HS-DSCHRequiredPowerValue                  PRESENCE mandatory}|
    { ID id-Transmitted-Carrier-Power-For-CellPortion   CRITICALITY reject  TYPE Transmitted-Carrier-Power-Value           PRESENCE mandatory }|
```

```
    { ID id-Received-total-wide-band-power-For-CellPortion  CRITICALITY reject  TYPE Received-total-wide-band-power-Value   PRESENCE mandatory }|
    { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortion   CRITICALITY reject  TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue      PRESENCE mandatory }|
    { ID id-UpPTSInterferenceValue                    CRITICALITY reject  TYPE UpPTSInterferenceValue                    PRESENCE mandatory }|
    { ID id-DLTransmissionBranchLoadValue             CRITICALITY reject  TYPE DLTransmissionBranchLoadValue             PRESENCE mandatory }|
    { ID id-HS-DSCHRequiredPowerValue-For-Cell-Portion  CRITICALITY reject  TYPE HS-DSCHRequiredPowerValue                PRESENCE mandatory }|
    { ID id-E-DCH-Non-serving-Relative-Grant-Down-CommandsValue     CRITICALITY reject  TYPE E-DCH-Non-serving-Relative-Grant-Down-Commands
    PRESENCE mandatory }|
    { ID id-Rx-Timing-Deviation-Value-768              CRITICALITY reject  TYPE Rx-Timing-Deviation-Value-768              PRESENCE mandatory }|
    { ID id-Rx-Timing-Deviation-Value-384-ext          CRITICALITY reject  TYPE Rx-Timing-Deviation-Value-384-ext          PRESENCE mandatory }|
    { ID id-Extended-Round-Trip-Time-Value                CRITICALITY reject  TYPE Extended-Round-Trip-Time-Value         PRESENCE mandatory }|
    { ID id-Received-Scheduled-EDCH-Power-Share               CRITICALITY reject  TYPE RSEPS-Value-IncrDecrThres          PRESENCE mandatory }|
    { ID id-Received-Scheduled-EDCH-Power-Share-For-CellPortion CRITICALITY reject  TYPE RSEPS-Value-IncrDecrThres          PRESENCE mandatory }|
    { ID id-Additional-HS-SICH-Reception-Quality-Measurement-Value  CRITICALITY reject  TYPE HS-SICH-Reception-Quality-Measurement-Value
    PRESENCE mandatory}|
    -- Applicable to 1.28Mcps TDD only, used when the Measurement Threshold Value for HS-SICH Reception Quality are more than 20, Measurement
Threshold Value = 20 + IE Value
    { ID id-TUTRANGANSSMeasurementThresholdInformation  CRITICALITY reject  TYPE TUTRANGANSSMeasurementThresholdInformation PRESENCE mandatory }
}

ReportCharacteristicsType-ScaledMeasurementChangeTime ::= CHOICE {
    msec               MeasurementChangeTime-Scaledmsec,
    ...
}

MeasurementChangeTime-Scaledmsec ::= INTEGER (1..6000,...)
-- MeasurementChangeTime-Scaledmsec = Time * 10
-- Unit ms, Range 10ms .. 60000ms(1min), Step 10ms

ReportCharacteristicsType-ScaledMeasurementHysteresisTime ::= CHOICE {
    msec               MeasurementHysteresisTime-Scaledmsec,
    ...
}

MeasurementHysteresisTime-Scaledmsec ::= INTEGER (1..6000,...)
-- MeasurementHysteresisTime-Scaledmsec = Time * 10
-- Unit ms, Range 10ms .. 60000ms(1min), Step 10ms

ReportCharacteristicsType-ReportPeriodicity ::= CHOICE {
    msec               ReportPeriodicity-Scaledmsec,
    min                ReportPeriodicity-Scaledmin,
    ...
}

ReportPeriodicity-Scaledmsec ::= INTEGER (1..6000,...)
-- ReportPeriodicity-msec = ReportPeriodicity * 10
-- Unit ms, Range 10ms .. 60000ms(1min), Step 10ms

ReportPeriodicity-Scaledmin ::= INTEGER (1..60,...)
-- Unit min, Range 1min .. 60min(hour), Step 1min

ReportPeriodicity-Scaledhour ::= INTEGER (1..24,...)
-- Unit hour, Range 1hour .. 24hours(day), Step 1hour
```

```
ResourceOperationalState ::= ENUMERATED {
    enabled,
    disabled
}

RL-ID ::= INTEGER (0..31)

RL-Set-ID               ::= INTEGER (0..31)

RLC-Mode    ::= ENUMERATED {
    rLC-AM,
    rLC-UM,
    ...
}

Round-Trip-Time-IncrDecrThres ::= INTEGER(0..32766)

RNC-ID                  ::= INTEGER (0..4095)

Round-Trip-Time-Value ::= INTEGER(0..32767)
-- According to mapping in [22]

RSCP-Value ::= INTEGER (0..127)
-- According to mapping in [23]

RSCP-Value-IncrDecrThres ::= INTEGER (0..126)

Received-total-wide-band-power-For-CellPortion-Value ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF Received-total-wide-band-power-For-
CellPortion-Value-Item

Received-total-wide-band-power-For-CellPortion-Value-Item ::= SEQUENCE{
    cellPortionID                       CellPortionID,
    received-total-wide-band-power-value    Received-total-wide-band-power-Value,
    iE-Extensions                       ProtocolExtensionContainer { { Received-total-wide-band-power-For-CellPortion-Value-Item-ExtIEs} }
    OPTIONAL,
    ...
}

Received-total-wide-band-power-For-CellPortion-Value-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Received-total-wide-band-power-Value ::= INTEGER(0..621)
-- According to mapping in [22]/[23]

Received-total-wide-band-power-Value-IncrDecrThres ::= INTEGER (0..620)

Received-Scheduled-EDCH-Power-Share-For-CellPortion-Value ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF Received-Scheduled-EDCH-Power-
Share-For-CellPortion-Value-Item

Received-Scheduled-EDCH-Power-Share-For-CellPortion-Value-Item ::= SEQUENCE{
    cellPortionID                       CellPortionID,
    received-Scheduled-power-share-value    RSEPS-Value,
    received-total-wide-band-power-value    Received-total-wide-band-power-Value        OPTIONAL,
```

```
    iE-Extensions                           ProtocolExtensionContainer { { Received-Scheduled-EDCH-Power-Share-For-CellPortion-Value-Item-ExtIEs} }
        OPTIONAL,
    ...
    }

Received-Scheduled-EDCH-Power-Share-For-CellPortion-Value-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Received-Scheduled-EDCH-Power-Share-Value ::= SEQUENCE{
    received-Scheduled-power-share-value    RSEPS-Value,
    received-total-wide-band-power-value    Received-total-wide-band-power-Value        OPTIONAL,
    ...
    }

RSEPS-Value-IncrDecrThres ::= INTEGER (0..151)


RSEPS-Value ::= INTEGER (0..151)
-- According to mapping in [22]


RequestedDataValueInformation ::= CHOICE {
    informationAvailable        InformationAvailable,
    informationnotAvailable     InformationnotAvailable
}

InformationAvailable::= SEQUENCE {
    requesteddataValue      RequestedDataValue,
    ie-Extensions           ProtocolExtensionContainer { { InformationAvailableItem-ExtIEs} }                       OPTIONAL,
    ...
}


InformationAvailableItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

InformationnotAvailable ::= NULL

RequestedDataValue ::= SEQUENCE {
    dgps-corrections        DGPSCorrections                                                 OPTIONAL,
    gps-navandrecovery      GPS-NavigationModel-and-TimeRecovery                            OPTIONAL,
    gps-ionos-model         GPS-Ionospheric-Model                                           OPTIONAL,
    gps-utc-model           GPS-UTC-Model                                                   OPTIONAL,
    gps-almanac             GPS-Almanac                                                     OPTIONAL,
    gps-rt-integrity        GPS-RealTime-Integrity                                          OPTIONAL,
    gpsrxpos                GPS-RX-POS                                                      OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { RequestedDataValue-ExtIEs} }     OPTIONAL,
    ...
}
```

```
RequestedDataValue-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-GANSS-Common-Data           CRITICALITY ignore      EXTENSION GANSS-Common-Data                         PRESENCE optional }|
    { ID id-GANSS-Generic-Data          CRITICALITY ignore      EXTENSION GANSS-Generic-Data                        PRESENCE optional },
    ...
}

Rx-Timing-Deviation-Value ::= INTEGER (0..8191)
-- According to mapping in [23]

Rx-Timing-Deviation-Value-LCR ::= INTEGER (0..511)
-- According to mapping in [23]

Rx-Timing-Deviation-Value-768 ::= INTEGER (0..65535)
-- According to mapping in [23]

Rx-Timing-Deviation-Value-384-ext ::= INTEGER (0..32767)
-- According to mapping in [23]

RefBeta ::= INTEGER (-15..16)

RTWP-ReportingIndicator ::= ENUMERATED {
    rTWP-reporting-required}

RTWP-CellPortion-ReportingIndicator ::= ENUMERATED {
    rTWP-CellPortion-reporting-required}


-- ========================================
--  S
-- ========================================

AdjustmentPeriod            ::= INTEGER(1..256)
-- Unit Frame

SAT-ID ::= INTEGER (0..63)

SAT-Info-Almanac ::= SEQUENCE (SIZE (1..maxNoSat)) OF SAT-Info-Almanac-Item

SAT-Info-Almanac-Item ::= SEQUENCE {
    data-id             DATA-ID,
    sat-id              SAT-ID,
    gps-e-alm           BIT STRING (SIZE (16)),
    gps-toa-alm         BIT STRING (SIZE (8)),
    gps-delta-I-alm     BIT STRING (SIZE (16)),
    omegadot-alm        BIT STRING (SIZE (16)),
    svhealth-alm        BIT STRING (SIZE (8)),
    gps-a-sqrt-alm      BIT STRING (SIZE (24)),
    omegazero-alm       BIT STRING (SIZE (24)),
    m-zero-alm          BIT STRING (SIZE (24)),
    gps-omega-alm       BIT STRING (SIZE (24)),
    gps-af-zero-alm     BIT STRING (SIZE (11)),
    gps-af-one-alm      BIT STRING (SIZE (11)),
    ie-Extensions       ProtocolExtensionContainer { { SAT-Info-Almanac-Item-ExtIEs} }       OPTIONAL,
```

```
    ...
}   -- This GPS-Almanac-Information is for the 1st 16 satellites

SAT-Info-Almanac-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SAT-Info-Almanac-ExtList    ::= SEQUENCE (SIZE (1..maxNrOfSatAlmanac-maxNoSat)) OF SAT-Info-Almanac-ExtItem

SAT-Info-Almanac-ExtItem    ::= SEQUENCE {
    data-id            DATA-ID,
    sat-id             SAT-ID,
    gps-e-alm          BIT STRING (SIZE (16)),
    gps-toa-alm        BIT STRING (SIZE (8)),
    gps-delta-I-alm    BIT STRING (SIZE (16)),
    omegadot-alm       BIT STRING (SIZE (16)),
    svhealth-alm       BIT STRING (SIZE (8)),
    gps-a-sqrt-alm     BIT STRING (SIZE (24)),
    omegazero-alm      BIT STRING (SIZE (24)),
    m-zero-alm         BIT STRING (SIZE (24)),
    gps-omega-alm      BIT STRING (SIZE (24)),
    gps-af-zero-alm    BIT STRING (SIZE (11)),
    gps-af-one-alm     BIT STRING (SIZE (11)),
    ie-Extensions      ProtocolExtensionContainer { { SAT-Info-Almanac-ExtItemIEs } }       OPTIONAL,
    ...
}   --  Includes the GPS-Almanac-Information for 17th through 32nd satellites.

SAT-Info-Almanac-ExtItemIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SAT-Info-DGPSCorrections ::= SEQUENCE (SIZE (1..maxNoSat)) OF SAT-Info-DGPSCorrections-Item

SAT-Info-DGPSCorrections-Item ::= SEQUENCE {
    sat-id                                SAT-ID,
    iode-dgps                             BIT STRING (SIZE (8)),
    udre                                  UDRE,
    prc                                   PRC,
    range-correction-rate                 Range-Correction-Rate,
    ie-Extensions                         ProtocolExtensionContainer { { SAT-Info-DGPSCorrections-Item-ExtIEs} }  OPTIONAL,
    ...
}

SAT-Info-DGPSCorrections-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SATInfo-RealTime-Integrity ::= SEQUENCE (SIZE (1..maxNoSat)) OF SAT-Info-RealTime-Integrity-Item

SAT-Info-RealTime-Integrity-Item ::= SEQUENCE {
  bad-sat-id       SAT-ID,
  ie-Extensions    ProtocolExtensionContainer { { SAT-Info-RealTime-Integrity-Item-ExtIEs} }                      OPTIONAL,
```

```
    ...
}

SAT-Info-RealTime-Integrity-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ScaledAdjustmentRatio           ::= INTEGER(0..100)
-- AdjustmentRatio  = ScaledAdjustmentRatio / 100

MaxAdjustmentStep           ::= INTEGER(1..10)
-- Unit Slot

SchedulingInformation           ::= ENUMERATED {
    included,
    not-included
}


SchedulingPriorityIndicator             ::= INTEGER (0..15)      -- lowest (0), highest (15)

SID ::= INTEGER (0..maxNrOfMACdPDUIndexes-1)

ScramblingCodeNumber ::= INTEGER (0..15)

Secondary-CPICH-Information-Change ::= CHOICE {
    new-secondary-CPICH                 CommonPhysicalChannelID,
    secondary-CPICH-shall-not-be-used   NULL,
...
}

SecondaryCCPCH-SlotFormat ::= INTEGER(0..17,...)

Secondary-CCPCH-SlotFormat-Extended ::= INTEGER(18..23,...)

Segment-Type ::= ENUMERATED {
        first-segment,
        first-segment-short,
        subsequent-segment,
        last-segment,
        last-segment-short,
        complete-SIB,
        complete-SIB-short,
        ...
}

Serving-E-DCH-RL-ID ::= CHOICE {
    serving-E-DCH-RL-in-this-NodeB              Serving-E-DCH-RL-in-this-NodeB,
    serving-E-DCH-RL-not-in-this-NodeB          NULL,
    ...
}

Serving-E-DCH-RL-in-this-NodeB ::= SEQUENCE {
    rL-ID                                       RL-ID,
```

```
    iE-Extensions                               ProtocolExtensionContainer { { Serving-E-DCH-RL-in-this-NodeB-ExtIEs} }        OPTIONAL,
    ...
}

Serving-E-DCH-RL-in-this-NodeB-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFN ::= INTEGER (0..4095)

SFNSFN-FDD ::= INTEGER (0..614399)

SFNSFN-TDD ::= INTEGER (0..40961)

SFNSFN-TDD768 ::= INTEGER (0..81923)

SFNSFNChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

SFNSFNDriftRate ::= INTEGER (-100..100)
-- Unit chip/s, Step 1/256 chip/s, Range -100/256..+100/256 chip/s

SFNSFNDriftRateQuality ::= INTEGER (0..100)
-- Unit chip/s, Step 1/256 chip/s, Range 0..100/256 chip/s

SFNSFNMeasurementThresholdInformation::= SEQUENCE {
    sFNSFNChangeLimit                   SFNSFNChangeLimit                   OPTIONAL,
    predictedSFNSFNDeviationLimit       PredictedSFNSFNDeviationLimit       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { SFNSFNMeasurementThresholdInformation-ExtIEs} }    OPTIONAL,
    ...
}

SFNSFNMeasurementThresholdInformation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFNSFNMeasurementValueInformation ::= SEQUENCE {
    successfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation      SEQUENCE (SIZE(1..maxNrOfMeasNCell)) OF
        SEQUENCE {
            uC-Id                       UC-Id,
            sFNSFNValue                 SFNSFNValue,
            sFNSFNQuality               SFNSFNQuality               OPTIONAL,
            sFNSFNDriftRate             SFNSFNDriftRate,
            sFNSFNDriftRateQuality      SFNSFNDriftRateQuality      OPTIONAL,
            sFNSFNTimeStampInformation  SFNSFNTimeStampInformation,
            iE-Extensions       ProtocolExtensionContainer { { SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-
ExtIEs} }       OPTIONAL,
            ...
        },
    unsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation     SEQUENCE (SIZE(0..maxNrOfMeasNCell-1)) OF
        SEQUENCE {
            uC-Id                       UC-Id,
```

```
            iE-Extensions       ProtocolExtensionContainer { { UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-
ExtIEs} }       OPTIONAL,
                ...
        },
    iE-Extensions       ProtocolExtensionContainer { { SFNSFNMeasurementValueInformationItem-ExtIEs} }                OPTIONAL,
    ...
}

SFNSFNMeasurementValueInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFNSFNQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip

ShutdownTimer ::= INTEGER (1..3600)
-- Unit sec

SIB-Originator ::= ENUMERATED {
    nodeB,
    cRNC,
    ...
}

SIR-Error-Value ::= INTEGER (0..125)
-- According to mapping in [22]

SFNSFNTimeStampInformation ::= CHOICE {
    sFNSFNTimeStamp-FDD     SFN,
    sFNSFNTimeStamp-TDD     SFNSFNTimeStamp-TDD,
    ...}

SFNSFNTimeStamp-TDD::= SEQUENCE {
    sFN                 SFN,
    timeSlot            TimeSlot,
    iE-Extensions                   ProtocolExtensionContainer { { SFNSFNTimeStamp-ExtIEs} }                        OPTIONAL,
    ...
}

SFNSFNTimeStamp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

SFNSFNValue ::= CHOICE {
    sFNSFN-FDD      SFNSFN-FDD,
    sFNSFN-TDD      SFNSFN-TDD,         --- 1.28Mcps and 3.84Mcps TDD only
    ...,
    sFNSFN-TDD768   SFNSFN-TDD768
}

SIR-Error-Value-IncrDecrThres ::= INTEGER (0..124)

SIR-Value ::= INTEGER (0..63)
-- According to mapping in [22]/[23]

SIR-Value-IncrDecrThres ::= INTEGER (0..62)

SignallingBearerRequestIndicator::= ENUMERATED {bearerRequested}


SixtyfourQAM-UsageAllowedIndicator ::= ENUMERATED {
    allowed,
    not-allowed
}

SixtyfourQAM-DL-UsageIndicator ::= ENUMERATED {
    sixteenQAM-DL-used,
    sixteenQAM-DL-not-used
}

SixtyfourQAM-DL-Capability ::= ENUMERATED {
    sixtyfourQAM-DL-supported,
    sixtyfourQAM-DL-not-supported
}


SignatureSequenceGroupIndex ::= INTEGER (0..19)



SixteenQAM-UL-Capability ::= ENUMERATED {
    sixteenQAM-UL-capable,
    sixteenQAM-UL-non-capable
}

SixteenQAM-UL-Operation-Indicator ::= ENUMERATED {
    activate,
    deactivate
}



SNPL-Reporting-Type ::= ENUMERATED {
    type1,
```

```
    type2
}


SpecialBurstScheduling ::= INTEGER (1..256) -- Number of frames between special burst transmission during DTX

Start-Of-Audit-Sequence-Indicator ::= ENUMERATED {
    start-of-audit-sequence,
    not-start-of-audit-sequence
}

STTD-Indicator ::= ENUMERATED {
    active,
    inactive,
    ...
}

SSDT-SupportIndicator ::= ENUMERATED {
    not-Used-sSDT-Supported,
    sSDT-not-supported
}

SyncCase ::= INTEGER (1..2,...)

SYNCDlCodeId ::= INTEGER (1..32,...)

SyncFrameNumber ::= INTEGER (1..10)

SynchronisationReportCharacteristics ::= SEQUENCE {
    synchronisationReportCharacteristicsType    SynchronisationReportCharacteristicsType,
    synchronisationReportCharactThreExc         SynchronisationReportCharactThreExc     OPTIONAL,
        -- This IE shall be included if the synchronisationReportCharacteristicsType IE is set to 'thresholdExceeding'.
    iE-Extensions                               ProtocolExtensionContainer { { SynchronisationReportCharacteristics-ExtIEs } } OPTIONAL,
    ...
}

SynchronisationReportCharacteristics-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-SyncDLCodeIdThreInfoLCR CRITICALITY ignore EXTENSION    SyncDLCodeIdThreInfoLCR     PRESENCE optional },
    ...
}

SynchronisationReportCharactThreExc ::=     SEQUENCE (SIZE (1..maxNrOfCellSyncBursts)) OF SynchronisationReportCharactThreInfoItem  -- Mandatory
for 3.84Mcps TDD only. Not Applicable to 1.28Mcps TDD.

SynchronisationReportCharactThreInfoItem ::= SEQUENCE {
    syncFrameNumber             SyncFrameNumber,
    cellSyncBurstInformation    SEQUENCE (SIZE (1.. maxNrOfReceptsPerSyncFrame)) OF SynchronisationReportCharactCellSyncBurstInfoItem,
    iE-Extensions               ProtocolExtensionContainer { { SynchronisationReportCharactThreInfoItem-ExtIEs } }    OPTIONAL,
    ...
}

SynchronisationReportCharactThreInfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
SynchronisationReportCharactCellSyncBurstInfoItem ::= SEQUENCE {
    cellSyncBurstCode               CellSyncBurstCode,
    cellSyncBurstCodeShift          CellSyncBurstCodeShift,
    cellSyncBurstTiming             CellSyncBurstTiming             OPTIONAL,
    cellSyncBurstTimingThreshold    CellSyncBurstTimingThreshold    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { SynchronisationReportCharactCellSyncBurstInfoItem-ExtIEs } }   OPTIONAL,
    ...
}

SynchronisationReportCharactCellSyncBurstInfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SyncDLCodeIdThreInfoLCR ::= SEQUENCE (SIZE (0..maxNrOfSyncFramesLCR)) OF SyncDLCodeIdThreInfoList  --Mandatory for 1.28Mcps TDD only. Not
Applicable to 3.84Mcps TDD.

SyncDLCodeIdThreInfoList ::= SEQUENCE {
    syncFrameNoToReceive            SyncFrameNumber,
    syncDLCodeIdInfoLCR             SyncDLCodeInfoListLCR,
    iE-Extensions                   ProtocolExtensionContainer { { SyncDLCodeIdThreInfoList-ExtIEs } }     OPTIONAL,
    ...
}

SyncDLCodeIdThreInfoList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SyncDLCodeInfoListLCR ::= SEQUENCE (SIZE (1..maxNrOfSyncDLCodesLCR)) OF SyncDLCodeInfoItemLCR

SyncDLCodeInfoItemLCR ::= SEQUENCE {
    syncDLCodeId                    SYNCDlCodeId,
    syncDLCodeIdArrivTime           CellSyncBurstTimingLCR              OPTIONAL,
    syncDLCodeIdTimingThre          CellSyncBurstTimingThreshold        OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { SyncDLCodeInfoItem-LCR-ExtIEs } }    OPTIONAL,
    ...
}

SyncDLCodeInfoItem-LCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SynchronisationReportCharacteristicsType ::= ENUMERATED {
    frameRelated,
    sFNperiodRelated,
    cycleLengthRelated,
    thresholdExceeding,
    frequencyAcquisitionCompleted,
    ...
}

SynchronisationReportType ::= ENUMERATED {
    initialPhase,
    steadyStatePhase,
```

```
    lateEntrantCell,
    frequencyAcquisition,
    ...
}

-- ==========================================
--  T
-- ==========================================

T1 ::= ENUMERATED {v10,v20,v30,v40,v50,v60,v70,v80,v90,v100,v120,v140,v160,v200,v300,v400,...}

T-Cell ::= ENUMERATED {
    v0,
    v1,
    v2,
    v3,
    v4,
    v5,
    v6,
    v7,
    v8,
    v9
}

T-RLFAILURE ::= INTEGER (0..255)
-- Unit seconds, Range 0s .. 25.5s, Step 0.1s

TDD-AckNack-Power-Offset ::= INTEGER (-7..8,...)
-- Unit dB, Range -7dB .. +8dB, Step 1dB

TDD-ChannelisationCode ::= ENUMERATED {
    chCode1div1,
    chCode2div1,
    chCode2div2,
    chCode4div1,
    chCode4div2,
    chCode4div3,
    chCode4div4,
    chCode8div1,
    chCode8div2,
    chCode8div3,
    chCode8div4,
    chCode8div5,
    chCode8div6,
    chCode8div7,
    chCode8div8,
    chCode16div1,
    chCode16div2,
    chCode16div3,
    chCode16div4,
    chCode16div5,
    chCode16div6,
    chCode16div7,
    chCode16div8,
```

```
    chCode16div9,
    chCode16div10,
    chCode16div11,
    chCode16div12,
    chCode16div13,
    chCode16div14,
    chCode16div15,
    chCode16div16,
    ...
}

TDD-ChannelisationCodeLCR ::= SEQUENCE {
    tDD-ChannelisationCode          TDD-ChannelisationCode,
    modulation                      Modulation, -- Modulation options for 1.28Mcps TDD in contrast to 3.84Mcps TDD or 7.68Mcps TDD
    iE-Extensions                           ProtocolExtensionContainer { { TDD-ChannelisationCodeLCR-ExtIEs} }        OPTIONAL,
    ...
}

TDD-ChannelisationCodeLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


TDD-ChannelisationCode768           ::= ENUMERATED {
    chCode1div1,
    chCode2div1,
    chCode2div2,
    chCode4div1,
    chCode4div2,
    chCode4div3,
    chCode4div4,
    chCode8div1,
    chCode8div2,
    chCode8div3,
    chCode8div4,
    chCode8div5,
    chCode8div6,
    chCode8div7,
    chCode8div8,
    chCode16div1,
    chCode16div2,
    chCode16div3,
    chCode16div4,
    chCode16div5,
    chCode16div6,
    chCode16div7,
    chCode16div8,
    chCode16div9,
    chCode16div10,
    chCode16div11,
    chCode16div12,
    chCode16div13,
    chCode16div14,
    chCode16div15,
```

```
    chCode16div16,
    chCode32div1,
    chCode32div2,
    chCode32div3,
    chCode32div4,
    chCode32div5,
    chCode32div6,
    chCode32div7,
    chCode32div8,
    chCode32div9,
    chCode32div10,
    chCode32div11,
    chCode32div12,
    chCode32div13,
    chCode32div14,
    chCode32div15,
    chCode32div16,
    chCode32div17,
    chCode32div18,
    chCode32div19,
    chCode32div20,
    chCode32div21,
    chCode32div22,
    chCode32div23,
    chCode32div24,
    chCode32div25,
    chCode32div26,
    chCode32div27,
    chCode32div28,
    chCode32div29,
    chCode32div30,
    chCode32div31,
    chCode32div32,
    ...
}

TDD-DL-Code-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF TDD-DL-Code-InformationItem

TDD-DL-Code-InformationItem  ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    iE-Extensions                           ProtocolExtensionContainer { { TDD-DL-Code-InformationItem-ExtIEs} }      OPTIONAL,
    ...
}

TDD-DL-Code-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-DL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHLCRs)) OF TDD-DL-Code-LCR-InformationItem

TDD-DL-Code-LCR-InformationItem ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    tdd-ChannelisationCodeLCR               TDD-ChannelisationCodeLCR,
```

```
    tdd-DL-DPCH-TimeSlotFormat-LCR          TDD-DL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions                           ProtocolExtensionContainer { { TDD-DL-Code-LCR-InformationItem-ExtIEs} }     OPTIONAL,
    ...
}

TDD-DL-Code-LCR-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-DL-Code-768-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHs768)) OF TDD-DL-Code-768-InformationItem

TDD-DL-Code-768-InformationItem  ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    tdd-ChannelisationCode768               TDD-ChannelisationCode768,
    iE-Extensions                           ProtocolExtensionContainer { { TDD-DL-Code-768-InformationItem-ExtIEs} }     OPTIONAL,
    ...
}

TDD-DL-Code-768-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-DL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
    qPSK                        QPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
    eightPSK                    EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
    -- For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, this IE denotes MBSFN S-CCPCH time slot format
    ...
}

QPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)

EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)
-- For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, this IE denotes MBSFN S-CCPCH time slot format, INTEGER(0..11,...)

TDD-DPCHOffset ::= CHOICE {
    initialOffset       INTEGER (0..255),
    noinitialOffset     INTEGER (0..63)
}

TDD-PhysicalChannelOffset ::= INTEGER (0..63)

TDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size1,
    step-size2,
    step-size3,
    ...
}

TDD-TPC-UplinkStepSize-LCR ::= ENUMERATED {
    step-size1,
    step-size2,
    step-size3,
    ...
}
```

```
TransportFormatCombination-Beta ::= CHOICE {
    signalledGainFactors        SEQUENCE {
        gainFactor                  CHOICE {
            fdd                         SEQUENCE {
                betaC                       BetaCD,
                betaD                       BetaCD,
                iE-Extensions       ProtocolExtensionContainer { { GainFactorFDD-ExtIEs } }     OPTIONAL,
                ...
            },
            tdd                         BetaCD,
            ...
        },
        refTFCNumber                RefTFCNumber    OPTIONAL,
        iE-Extensions           ProtocolExtensionContainer { { SignalledGainFactors-ExtIEs } }                      OPTIONAL,
        ...
    },
    computedGainFactors             RefTFCNumber,
    ...
}

GainFactorFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SignalledGainFactors-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-Code-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-InformationItem

TDD-UL-Code-InformationItem ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    iE-Extensions                           ProtocolExtensionContainer { { TDD-UL-Code-InformationItem-ExtIEs} }      OPTIONAL,
    ...
}

TDD-UL-Code-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHLCRs)) OF TDD-UL-Code-LCR-InformationItem

TDD-UL-Code-LCR-InformationItem ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    tdd-ChannelisationCodeLCR               TDD-ChannelisationCodeLCR,
    tdd-UL-DPCH-TimeSlotFormat-LCR          TDD-UL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions                           ProtocolExtensionContainer { { TDD-UL-Code-LCR-InformationItem-ExtIEs} }     OPTIONAL,
    ...
}

TDD-UL-Code-LCR-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}
TDD-UL-Code-768-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-768-InformationItem

TDD-UL-Code-768-InformationItem ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    tdd-ChannelisationCode768               TDD-ChannelisationCode768,
    iE-Extensions                           ProtocolExtensionContainer { { TDD-UL-Code-768-InformationItem-ExtIEs} }     OPTIONAL,
    ...
}

TDD-UL-Code-768-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
    qPSK                        QPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
    eightPSK                    EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
    ...
}

QPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..69,...)

EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)

TFCI-Coding ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    ...
}

TFCI-Presence ::= ENUMERATED {
    present,
    not-present
}

TFCI-SignallingMode ::= SEQUENCE {
    tFCI-SignallingOption       TFCI-SignallingMode-TFCI-SignallingOption,
    not-Used-splitType          NULL                OPTIONAL,
    not-Used-lengthOfTFCI2      NULL                OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { { TFCI-SignallingMode-ExtIEs} }                        OPTIONAL,
    ...
}

TFCI-SignallingMode-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCI-SignallingMode-TFCI-SignallingOption ::= ENUMERATED {
    normal,
    not-Used-split
}
```

```
TGD                 ::= INTEGER (0|15..269)
-- 0 = Undefined, only one transmission gap in the transmission gap pattern sequence

TGPRC               ::= INTEGER (0..511)
-- 0 = infinity

TGPSID              ::= INTEGER (1.. maxTGPS)

TGSN                ::= INTEGER (0..14)

TimeSlot ::= INTEGER (0..14)

TimeSlotDirection ::= ENUMERATED {
    ul,
    dl,
    ...
}

TimeSlotLCR ::= INTEGER (0..6)

TimeslotLCR-Extension ::= ENUMERATED {
    ts7,
    ...
}
-- ts7 indicates the MBSFN Special Timeslot for 1.28Mcps TDD MBSFN Dedicated Carrier.

TimeSlotStatus ::= ENUMERATED {
    active,
    not-active,
    ...
}

TimingAdjustmentValue ::= CHOICE {
    initialPhase        INTEGER (0..1048575,...),
    steadyStatePhase    INTEGER (0..255,...)
}

TimingAdjustmentValueLCR ::= CHOICE {
    initialPhase        INTEGER (0..524287,...),
    steadyStatePhase    INTEGER (0..127,...)
}

TimingAdvanceApplied ::= ENUMERATED {
    yes,
    no
}

SynchronisationIndicator ::= ENUMERATED {
    timingMaintainedSynchronisation,
    ...
}
```

```
TnlQos ::= CHOICE {
    dsField                 DsField,
    genericTrafficCategory  GenericTrafficCategory,
    ...
}

ToAWE ::= INTEGER (0..2559)
-- Unit ms

ToAWS ::= INTEGER (0..1279)
-- Unit ms

Transmission-Gap-Pattern-Sequence-Information ::= SEQUENCE (SIZE (1..maxTGPS)) OF
    SEQUENCE {
        tGPSID          TGPSID,
        tGSN            TGSN,
        tGL1            GapLength,
        tGL2            GapLength   OPTIONAL,
        tGD             TGD,
        tGPL1           GapDuration,
        not-to-be-used-1            GapDuration OPTIONAL,
            -- This IE shall never be included in the SEQUENCE. If received it shall be ignored
        uL-DL-mode      UL-DL-mode,
        downlink-Compressed-Mode-Method     Downlink-Compressed-Mode-Method     OPTIONAL,
            -- This IE shall be present if the UL/DL mode IE is set to "DL only" or "UL/DL"
        uplink-Compressed-Mode-Method       Uplink-Compressed-Mode-Method       OPTIONAL,
            -- This IE shall be present if the UL/DL mode IE is set to "UL only" or "UL/DL"
        dL-FrameType        DL-FrameType,
        delta-SIR1          DeltaSIR,
        delta-SIR-after1    DeltaSIR,
        delta-SIR2          DeltaSIR    OPTIONAL,
        delta-SIR-after2    DeltaSIR    OPTIONAL,
        iE-Extensions           ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
        ...
    }

Transmission-Gap-Pattern-Sequence-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransmissionGapPatternSequenceCodeInformation   ::= ENUMERATED{
   code-change,
   nocode-change
}
```

```
TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue ::= SEQUENCE (SIZE
(1..maxNrOfCellPortionsPerCell)) OF TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue-
Item

TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue-Item ::= SEQUENCE{
    cellPortionID                           CellPortionID,
    transmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue  TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue,
    iE-Extensions                           ProtocolExtensionContainer { { TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-
RGCHOrE-HICHTransmissionCellPortionValue-Item-ExtIEs} }     OPTIONAL,
    ...
}

TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue-Item-ExtIEs NBAP-PROTOCOL-EXTENSION
::= {
    ...
}

TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue ::= INTEGER(0..100)
-- According to mapping in [22] and [23]

Transmitted-Carrier-Power-For-CellPortion-Value ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF Transmitted-Carrier-Power-For-CellPortion-
Value-Item

Transmitted-Carrier-Power-For-CellPortion-Value-Item ::= SEQUENCE{
    cellPortionID                           CellPortionID,
    transmitted-Carrier-Power-Value         Transmitted-Carrier-Power-Value,
    iE-Extensions                           ProtocolExtensionContainer { { Transmitted-Carrier-Power-For-CellPortion-Value-Item-ExtIEs} }
    OPTIONAL,
    ...
}

Transmitted-Carrier-Power-For-CellPortion-Value-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Transmitted-Carrier-Power-Value ::= INTEGER(0..100)
-- According to mapping in [22]/[23]

Transmitted-Code-Power-Value ::= INTEGER (0..127)
-- According to mapping in [22]/[23]. Values 0 to 9 and 123 to 127 shall not be used.

Transmitted-Code-Power-Value-IncrDecrThres ::= INTEGER (0..112,...)

TransmissionDiversityApplied ::= BOOLEAN
-- true: applied, false: not applied

TransmitDiversityIndicator ::= ENUMERATED {
    active,
    inactive
}

TFCS ::= SEQUENCE {
    tFCSvalues                  CHOICE {
```

```
        no-Split-in-TFCI            TFCS-TFCSList,
        not-Used-split-in-TFCI      NULL,
        -- This choice shall never be made by the CRNC and the Node B shall consider the procedure as failed if it is received.
        ...
    },
    iE-Extensions       ProtocolExtensionContainer  { { TFCS-ExtIEs} }      OPTIONAL,
    ...
}

TFCS-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS-TFCSList ::= SEQUENCE (SIZE (1..maxNrOfTFCs)) OF
    SEQUENCE {
        cTFC                TFCS-CTFC,
        tFC-Beta        TransportFormatCombination-Beta     OPTIONAL,
        -- The IE shall be present if the TFCS concerns a UL DPCH or PRACH channel [FDD - or PCPCH channel].
        iE-Extensions       ProtocolExtensionContainer  { { TFCS-TFCSList-ExtIEs} }     OPTIONAL,
        ...
}

TFCS-TFCSList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS-CTFC ::= CHOICE {
    ctfc2bit                            INTEGER (0..3),
    ctfc4bit                            INTEGER (0..15),
    ctfc6bit                            INTEGER (0..63),
    ctfc8bit                            INTEGER (0..255),
    ctfc12bit                           INTEGER (0..4095),
    ctfc16bit                           INTEGER (0..65535),
    ctfcmaxbit                          INTEGER (0..maxCTFC)
}

Transport-Block-Size-Index ::= INTEGER(1..maxNrOfHS-DSCH-TBSs)

Transport-Block-Size-Index-for-Enhanced-PCH ::= INTEGER(1..32)
-- Index of the value range 1 to 32 of the MAC-ehs transport block size as specified in appendix A of [32]

Transport-Block-Size-List ::= SEQUENCE (SIZE (1..maxNrOfHS-DSCHTBSsE-PCH)) OF
    SEQUENCE {
        transport-Block-Size-Index-for-Enhanced-PCH         Transport-Block-Size-Index-for-Enhanced-PCH,
        iE-Extensions               ProtocolExtensionContainer  { { Transport-Block-Size-List-ExtIEs} }              OPTIONAL,
        ...
    }

Transport-Block-Size-List-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportBearerRequestIndicator ::= ENUMERATED {
    bearerRequested,
```

```
    bearerNotRequested,
    ...
}

TransportBearerNotRequestedIndicator ::= ENUMERATED {
    transport-bearer-shall-not-be-established,
    transport-bearer-may-not-be-established
}

TransportBearerNotSetupIndicator ::= ENUMERATED {
    transport-bearer-not-setup
}

TransportFormatSet ::= SEQUENCE {
    dynamicParts            TransportFormatSet-DynamicPartList,
    semi-staticPart         TransportFormatSet-Semi-staticPart,
    iE-Extensions           ProtocolExtensionContainer  { { TransportFormatSet-ExtIEs} }        OPTIONAL,
    ...
}

TransportFormatSet-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-DynamicPartList ::= SEQUENCE (SIZE (1..maxNrOfTFs)) OF
    SEQUENCE {
        nrOfTransportBlocks         TransportFormatSet-NrOfTransportBlocks,
        transportBlockSize          TransportFormatSet-TransportBlockSize       OPTIONAL,
        -- This IE shall be present if the Number of Transport Blocks IE is set to a value greater than 0
        mode                        TransportFormatSet-ModeDP,
        iE-Extensions               ProtocolExtensionContainer  { { TransportFormatSet-DynamicPartList-ExtIEs} }      OPTIONAL,
        ...
    }

TransportFormatSet-DynamicPartList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-TransportFormatSet-ModeDP ::= SEQUENCE {
    transmissionTimeIntervalInformation     TransmissionTimeIntervalInformation     OPTIONAL,
    -- This IE shall be present if the Transmission Time Interval IE in the Semi-static Transport Format Information IE is set to 'dynamic'
    iE-Extensions                           ProtocolExtensionContainer { {TDD-TransportFormatSet-ModeDP-ExtIEs} } OPTIONAL,
    ...
    }

TDD-TransportFormatSet-ModeDP-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransmissionTimeIntervalInformation ::= SEQUENCE (SIZE (1..maxTTI-count)) OF
    SEQUENCE {
        transmissionTimeInterval        TransportFormatSet-TransmissionTimeIntervalDynamic,
    iE-Extensions                       ProtocolExtensionContainer { { TransmissionTimeIntervalInformation-ExtIEs} }     OPTIONAL,
    ...
```

```
}

TransmissionTimeIntervalInformation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-Semi-staticPart ::= SEQUENCE {
    transmissionTimeInterval            TransportFormatSet-TransmissionTimeIntervalSemiStatic,
    channelCoding                   TransportFormatSet-ChannelCodingType,
    codingRate                      TransportFormatSet-CodingRate               OPTIONAL,
    -- This IE shall be present if the Type of channel coding IE is set to 'convolutional' or 'turbo'
    rateMatchingAttribute           TransportFormatSet-RateMatchingAttribute,
    cRC-Size                        TransportFormatSet-CRC-Size,
    mode                            TransportFormatSet-ModeSSP  ,
    iE-Extensions                   ProtocolExtensionContainer { { TransportFormatSet-Semi-staticPart-ExtIEs} }       OPTIONAL,
    ...
}

TransportFormatSet-Semi-staticPart-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-ChannelCodingType ::= ENUMERATED {
    no-codingTDD,
    convolutional-coding,
    turbo-coding,
    ...
}

TransportFormatSet-CodingRate ::= ENUMERATED {
    half,
    third,
    ...
}

TransportFormatSet-CRC-Size ::= ENUMERATED {
    v0,
    v8,
    v12,
    v16,
    v24,
    ...
}

TransportFormatSet-ModeDP ::= CHOICE {
    tdd                 TDD-TransportFormatSet-ModeDP,
    notApplicable               NULL,
    ...
}

TransportFormatSet-ModeSSP ::= CHOICE {
    tdd             TransportFormatSet-SecondInterleavingMode,
    notApplicable               NULL,
    ...
```

```
}

TransportFormatSet-NrOfTransportBlocks ::= INTEGER (0..512)

TransportFormatSet-RateMatchingAttribute ::= INTEGER (1..maxRateMatching)

TransportFormatSet-SecondInterleavingMode ::= ENUMERATED {
    frame-related,
    timeSlot-related,
    ...
}

TransportFormatSet-TransmissionTimeIntervalDynamic ::= ENUMERATED {
    msec-10,
    msec-20,
    msec-40,
    msec-80,
    ...
}

TransportFormatSet-TransmissionTimeIntervalSemiStatic ::= ENUMERATED {
    msec-10,
    msec-20,
    msec-40,
    msec-80,
    dynamic,
    ...,
    msec-5
}

TransportFormatSet-TransportBlockSize ::= INTEGER (0..5000)

TransportLayerAddress ::= BIT STRING (SIZE (1..160, ...))

TSTD-Indicator ::= ENUMERATED {
    active,
    inactive
}


TSN-Length ::= ENUMERATED {
    tsn-6bits,
    tsn-9bits
}

TUTRANGANSS ::= SEQUENCE {
    mS              INTEGER(0..16383),
    lS              INTEGER(0..4294967295)
}

TUTRANGANSSAccuracyClass ::= ENUMERATED {
    ganssAccuracy-class-A,
    ganssAccuracy-class-B,
    ganssAccuracy-class-C,
```

```
    ...
}

TUTRANGANSSMeasurementThresholdInformation ::= SEQUENCE {
    tUTRANGANSSChangeLimit              INTEGER(1..256)                                                                 OPTIONAL,
    predictedTUTRANGANSSDeviationLimit  INTEGER(1..256)                                                                 OPTIONAL,
    ie-Extensions           ProtocolExtensionContainer { { TUTRANGANSSMeasurementThresholdInformation-ExtIEs } }    OPTIONAL,
    ...
}


TUTRANGANSSMeasurementThresholdInformation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TUTRANGANSSMeasurementValueInformation ::= SEQUENCE {
    tUTRANGANSS                     TUTRANGANSS,
    tUTRANGANSSQuality              INTEGER(0..255)                                                                 OPTIONAL,
    tUTRANGANSSDriftRate            INTEGER(-50..50),
    tUTRANGANSSDriftRateQuality     INTEGER(0..50)                                                                  OPTIONAL,
    ie-Extensions           ProtocolExtensionContainer { { TUTRANGANSSMeasurementValueInformation-ExtIEs } }       OPTIONAL,
    ...
}

TUTRANGANSSMeasurementValueInformation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TUTRANGPS ::= SEQUENCE {
    ms-part     INTEGER (0..16383),
    ls-part     INTEGER (0..4294967295)
}

TUTRANGPSChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

TUTRANGPSDriftRate ::= INTEGER (-50..50)
-- Unit chip/s, Step 1/256 chip/s, Range -50/256..+50/256 chip/s

TUTRANGPSDriftRateQuality ::= INTEGER (0..50)
-- Unit chip/s, Step 1/256 chip/s, Range 0..50/256 chip/s

TUTRANGPSAccuracyClass ::= ENUMERATED {
    accuracy-class-A,
    accuracy-class-B,
    accuracy-class-C,
    ...
}

TUTRANGPSMeasurementThresholdInformation ::= SEQUENCE {
    tUTRANGPSChangeLimit                    TUTRANGPSChangeLimit                    OPTIONAL,
    predictedTUTRANGPSDeviationLimit        PredictedTUTRANGPSDeviationLimit        OPTIONAL,
```

```
    iE-Extensions                   ProtocolExtensionContainer { { TUTRANGPSMeasurementThresholdInformation-ExtIEs} }    OPTIONAL,
    ...
}

TUTRANGPSMeasurementThresholdInformation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TUTRANGPSMeasurementValueInformation ::= SEQUENCE {
        tUTRANGPS                       TUTRANGPS,
        tUTRANGPSQuality                TUTRANGPSQuality                OPTIONAL,
        tUTRANGPSDriftRate              TUTRANGPSDriftRate,
        tUTRANGPSDriftRateQuality       TUTRANGPSDriftRateQuality       OPTIONAL,
        iE-Extensions                   ProtocolExtensionContainer { {TUTRANGPSMeasurementValueInformationItem-ExtIEs} }    OPTIONAL,
        ...
}

TUTRANGPSMeasurementValueInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TUTRANGPSQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip

TypeOfError ::= ENUMERATED {
    not-understood,
    missing,
    ...
}

-- ========================================
--  U
-- ========================================

UARFCN ::= INTEGER (0..16383, ...)
-- corresponds to 0MHz .. 3276.6MHz

UC-Id ::= SEQUENCE {
    rNC-ID              RNC-ID,
    c-ID                C-ID,
    iE-Extensions           ProtocolExtensionContainer { {UC-Id-ExtIEs} } OPTIONAL,
    ...
}
UC-Id-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-RNC-ID     CRITICALITY  reject     EXTENSION   Extended-RNC-ID PRESENCE    optional},
    ...
}

UDRE ::= ENUMERATED {
    udre-minusequal-one-m,
    udre-betweenoneandfour-m,
    udre-betweenfourandeight-m,
```

```
    udre-greaterequaleight-m
}


UE-Capability-Information ::= SEQUENCE {
    hSDSCH-Physical-Layer-Category      INTEGER (1..64,...),
    iE-Extensions                       ProtocolExtensionContainer { { UE-Capability-Information-ExtIEs } }        OPTIONAL,
    ...
}

UE-Capability-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-LCRTDD-uplink-Physical-Channel-Capability        CRITICALITY ignore      EXTENSION LCRTDD-Uplink-Physical-Channel-Capability
    PRESENCE optional}|
    {ID id-number-Of-Supported-Carriers                     CRITICALITY reject      EXTENSION Number-Of-Supported-Carriers
    PRESENCE optional},
    ...
}

UE-DPCCH-burst1 ::= ENUMERATED {v1, v2, v5}
    -- Unit subframe

UE-DPCCH-burst2 ::= ENUMERATED {v1, v2, v5}
    -- Unit subframe

UE-DRX-Cycle ::= ENUMERATED {v4, v5, v8, v10, v16, v20}
    -- Unit subframe

UE-DRX-Grant-Monitoring ::= BOOLEAN
    -- true: applied, false: not applied

UE-DTX-Cycle1-2ms ::= ENUMERATED {v1, v4, v5, v8, v10, v16, v20}
    -- Unit subframe

UE-DTX-Cycle1-10ms ::= ENUMERATED {v1, v5, v10, v20}
    -- Unit subframe

UE-DTX-Cycle2-2ms ::= ENUMERATED {v4, v5, v8, v10, v16, v20, v32, v40, v64, v80, v128, v160}
    -- Unit subframe

UE-DTX-Cycle2-10ms ::= ENUMERATED {v5, v10, v20, v40, v80, v160}
    -- Unit subframe

UE-DTX-DRX-Offset ::= INTEGER (0..159)
    -- Unit subframe

UE-DTX-Long-Preamble ::= ENUMERATED {v2, v4, v15}
    -- Units of slots


UL-CapacityCredit ::= INTEGER (0..65535)

UL-Delta-T2TP ::= INTEGER (0..6,...)

UL-DL-mode ::= ENUMERATED {
```

```
    ul-only,
    dl-only,
    both-ul-and-dl
}

UL-DPDCH-Indicator-For-E-DCH-Operation ::= ENUMERATED {
    ul-DPDCH-present,
    ul-DPDCH-not-present
}


Uplink-Compressed-Mode-Method   ::= ENUMERATED {
    sFdiv2,
    higher-layer-scheduling,
    ...
}

UL-Timeslot-Information ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationItem

UL-Timeslot-InformationItem ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType,
    tFCI-Presence                           TFCI-Presence,
    uL-Code-InformationList                 TDD-UL-Code-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Timeslot-InformationItem-ExtIEs} }      OPTIONAL,
    ...
}

UL-Timeslot-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1..maxNrOfULTSLCRs)) OF UL-TimeslotLCR-InformationItem

UL-TimeslotLCR-InformationItem ::= SEQUENCE {
    timeSlotLCR                             TimeSlotLCR,
    midambleShiftLCR                        MidambleShiftLCR,
    tFCI-Presence                           TFCI-Presence,
    uL-Code-InformationList                 TDD-UL-Code-LCR-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-TimeslotLCR-InformationItem-ExtIEs} }   OPTIONAL,
    ...
}

UL-TimeslotLCR-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
{ ID id-PLCCH-Information-UL-TimeslotLCR-Info   CRITICALITY reject      EXTENSION PLCCHinformation                PRESENCE optional },
    ...
}

UL-Timeslot768-Information ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot768-InformationItem

UL-Timeslot768-InformationItem ::= SEQUENCE {
    timeSlot                                TimeSlot,
```

```
    midambleShiftAndBurstType768            MidambleShiftAndBurstType768,
    tFCI-Presence                           TFCI-Presence,
    uL-Code-InformationList                 TDD-UL-Code-768-Information,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Timeslot768-InformationItem-ExtIEs} }   OPTIONAL,
    ...
}

UL-Timeslot768-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCCH-SlotFormat ::= INTEGER (0..5,...)

UL-SIR ::= INTEGER (-82..173)
-- According to mapping in [16]

UL-FP-Mode ::= ENUMERATED {
    normal,
    silent,
    ...
}

UL-PhysCH-SF-Variation ::= ENUMERATED {
    sf-variation-supported,
    sf-variation-not-supported
}

UL-ScramblingCode ::= SEQUENCE {
    uL-ScramblingCodeNumber         UL-ScramblingCodeNumber,
    uL-ScramblingCodeLength         UL-ScramblingCodeLength,
    iE-Extensions                   ProtocolExtensionContainer { { UL-ScramblingCode-ExtIEs } }                    OPTIONAL,
    ...
}

UL-ScramblingCode-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-ScramblingCodeNumber ::= INTEGER (0..16777215)

UL-ScramblingCodeLength ::= ENUMERATED {
    short,
    long
}

UL-Synchronisation-Parameters-LCR ::= SEQUENCE {
    uL-Synchronisation-StepSize         UL-Synchronisation-StepSize,
    uL-Synchronisation-Frequency        UL-Synchronisation-Frequency,
    iE-Extensions                       ProtocolExtensionContainer { { UL-Synchronisation-Parameters-LCR-ExtIEs } }   OPTIONAL,
    ...
}

UL-Synchronisation-Parameters-LCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

UL-Synchronisation-StepSize ::= INTEGER (1..8)

UL-Synchronisation-Frequency ::= INTEGER (1..8)

UPPCHPositionLCR ::= INTEGER (0..127)

UL-TimeSlot-ISCP-Info ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF  UL-TimeSlot-ISCP-InfoItem

UL-TimeSlot-ISCP-InfoItem ::= SEQUENCE {
    timeSlot                        TimeSlot,
    iSCP                            UL-TimeslotISCP-Value,
    iE-Extensions                   ProtocolExtensionContainer { { UL-TimeSlot-ISCP-InfoItem-ExtIEs} }               OPTIONAL,
    ...
 }

UL-TimeSlot-ISCP-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-TimeSlot-ISCP-LCR-Info ::= SEQUENCE (SIZE (1..maxNrOfULTSLCRs)) OF   UL-TimeSlot-ISCP-LCR-InfoItem

UL-TimeSlot-ISCP-LCR-InfoItem ::= SEQUENCE {
    timeSlotLCR                     TimeSlotLCR,
    iSCP                            UL-TimeslotISCP-Value,
    iE-Extensions                   ProtocolExtensionContainer { { UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs} }           OPTIONAL,
    ...
 }

UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UpPTSInterferenceValue ::= INTEGER (0..127,...)

Unidirectional-DCH-Indicator    ::= ENUMERATED {
    downlink-DCH-only,
    uplink-DCH-only
}

USCH-Information ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-InformationItem

USCH-InformationItem ::= SEQUENCE {
    uSCH-ID                             USCH-ID,
    cCTrCH-ID                           CCTrCH-ID,          -- UL CCTrCH in which the USCH is mapped
    transportFormatSet                  TransportFormatSet, -- For USCH
    allocationRetentionPriority         AllocationRetentionPriority,
    iE-Extensions                       ProtocolExtensionContainer { { USCH-InformationItem-ExtIEs} }           OPTIONAL,
    ...
}

USCH-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-bindingID                   CRITICALITY ignore      EXTENSION   BindingID                           PRESENCE    optional }|
```

```
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-transportlayeraddress           CRITICALITY ignore      EXTENSION   TransportLayerAddress               PRESENCE    optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TnlQos                          CRITICALITY ignore      EXTENSION   TnlQos  PRESENCE optional           },
    ...
}

USCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-InformationResponseItem

USCH-InformationResponseItem ::= SEQUENCE {
    uSCH-ID                                 USCH-ID,
    bindingID                               BindingID               OPTIONAL,
    transportLayerAddress                   TransportLayerAddress   OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { USCH-InformationResponseItem-ExtIEs} }    OPTIONAL,
    ...
}

USCH-InformationResponseItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-TimeslotISCP-Value ::= INTEGER (0..127)
-- According to mapping in [23]

UL-TimeslotISCP-Value-IncrDecrThres ::= INTEGER (0..126)

USCH-ID ::= INTEGER (0..255)

-- ==========================================
--  V
-- ==========================================

-- ==========================================
--  W
-- ==========================================

-- ==========================================
--  X
-- ==========================================

-- ==========================================
--  Y
-- ==========================================

-- ==========================================
--  Z
-- ==========================================

END
```

9.3.5 Common Definitions

```
-- **************************************************************
```

```
--
-- Common definitions
--
-- **************************************************************

NBAP-CommonDataTypes {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-CommonDataTypes (3)  }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- Extension constants
--
-- **************************************************************

maxPrivateIEs                   INTEGER ::= 65535
maxProtocolExtensions           INTEGER ::= 65535
maxProtocolIEs                  INTEGER ::= 65535

-- **************************************************************
--
-- Common Data Types
--
-- **************************************************************

Criticality     ::= ENUMERATED { reject, ignore, notify }

MessageDiscriminator    ::= ENUMERATED { common, dedicated }

Presence        ::= ENUMERATED { optional, conditional, mandatory }

PrivateIE-ID    ::= CHOICE {
    local               INTEGER (0..maxPrivateIEs),
    global              OBJECT IDENTIFIER
}

ProcedureCode   ::= INTEGER (0..255)

ProcedureID     ::= SEQUENCE {
    procedureCode           ProcedureCode,
    ddMode                  ENUMERATED { tdd, fdd, common, ... }
}

ProtocolIE-ID       ::= INTEGER (0..maxProtocolIEs)

TransactionID       ::= CHOICE {
    shortTransActionId      INTEGER (0..127),
    longTransActionId       INTEGER (0..32767)
}
```

```
TriggeringMessage   ::= ENUMERATED { initiating-message, successful-outcome, unsuccessfull-outcome, outcome }

END
```

9.3.6 Constant Definitions

```
-- **************************************************************
--
-- Constant definitions
--
-- **************************************************************

NBAP-Constants {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-Constants (4)}

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS
    ProcedureCode,
    ProtocolIE-ID
FROM NBAP-CommonDataTypes;

-- **************************************************************
--
-- Elementary Procedures
--
-- **************************************************************

id-audit                                            ProcedureCode ::= 0
id-auditRequired                                    ProcedureCode ::= 1
id-blockResource                                    ProcedureCode ::= 2
id-cellDeletion                                     ProcedureCode ::= 3
id-cellReconfiguration                              ProcedureCode ::= 4
id-cellSetup                                        ProcedureCode ::= 5
id-cellSynchronisationInitiation                    ProcedureCode ::= 45
id-cellSynchronisationReconfiguration               ProcedureCode ::= 46
id-cellSynchronisationReporting                     ProcedureCode ::= 47
id-cellSynchronisationTermination                   ProcedureCode ::= 48
id-cellSynchronisationFailure                       ProcedureCode ::= 49
id-commonMeasurementFailure                         ProcedureCode ::= 6
id-commonMeasurementInitiation                      ProcedureCode ::= 7
id-commonMeasurementReport                          ProcedureCode ::= 8
id-commonMeasurementTermination                     ProcedureCode ::= 9
id-commonTransportChannelDelete                     ProcedureCode ::= 10
id-commonTransportChannelReconfigure                ProcedureCode ::= 11
id-commonTransportChannelSetup                      ProcedureCode ::= 12
id-compressedModeCommand                            ProcedureCode ::= 14
id-dedicatedMeasurementFailure                      ProcedureCode ::= 16
id-dedicatedMeasurementInitiation                   ProcedureCode ::= 17
id-dedicatedMeasurementReport                       ProcedureCode ::= 18
```

```
id-dedicatedMeasurementTermination                      ProcedureCode ::= 19
id-downlinkPowerControl                                 ProcedureCode ::= 20
id-downlinkPowerTimeslotControl                         ProcedureCode ::= 38
id-errorIndicationForCommon                             ProcedureCode ::= 35
id-errorIndicationForDedicated                          ProcedureCode ::= 21
id-informationExchangeFailure                           ProcedureCode ::= 40
id-informationExchangeInitiation                        ProcedureCode ::= 41
id-informationExchangeTermination                       ProcedureCode ::= 42
id-informationReporting                                 ProcedureCode ::= 43
id-BearerRearrangement                                  ProcedureCode ::= 50
id-mBMSNotificationUpdate                               ProcedureCode ::= 53
id-physicalSharedChannelReconfiguration                 ProcedureCode ::= 37
id-privateMessageForCommon                              ProcedureCode ::= 36
id-privateMessageForDedicated                           ProcedureCode ::= 22
id-radioLinkAddition                                    ProcedureCode ::= 23
id-radioLinkDeletion                                    ProcedureCode ::= 24
id-radioLinkFailure                                     ProcedureCode ::= 25
id-radioLinkPreemption                                  ProcedureCode ::= 39
id-radioLinkRestoration                                 ProcedureCode ::= 26
id-radioLinkSetup                                       ProcedureCode ::= 27
id-reset                                                ProcedureCode ::= 13
id-resourceStatusIndication                             ProcedureCode ::= 28
id-cellSynchronisationAdjustment                        ProcedureCode ::= 44
id-synchronisedRadioLinkReconfigurationCancellation     ProcedureCode ::= 29
id-synchronisedRadioLinkReconfigurationCommit           ProcedureCode ::= 30
id-synchronisedRadioLinkReconfigurationPreparation      ProcedureCode ::= 31
id-systemInformationUpdate                              ProcedureCode ::= 32
id-unblockResource                                      ProcedureCode ::= 33
id-unSynchronisedRadioLinkReconfiguration               ProcedureCode ::= 34
id-radioLinkActivation                                  ProcedureCode ::= 51
id-radioLinkParameterUpdate                             ProcedureCode ::= 52

-- **************************************************************
--
-- Lists
--
-- **************************************************************

maxNrOfCodes                INTEGER ::= 10
maxNrOfDLTSs                INTEGER ::= 15
maxNrOfDLTSLCRs             INTEGER ::= 6
maxNrOfErrors               INTEGER ::= 256
maxNrOfTFs                  INTEGER ::= 32
maxNrOfTFCs                 INTEGER ::= 1024
maxNrOfRLs                  INTEGER ::= 16
maxNrOfRLs-1                INTEGER ::= 15  -- maxNrOfRLs - 1
maxNrOfRLs-2                INTEGER ::= 14  -- maxNrOfRLs - 2
maxNrOfRLSets               INTEGER ::= maxNrOfRLs
maxNrOfDPCHs                INTEGER ::= 240
maxNrOfDPCHsPerRL-1         INTEGER ::= 239 -- maxNrofCCTrCH*maxNrOfULTSs-1
maxNrOfDPCHLCRs             INTEGER ::= 240
maxNrOfDPCHsLCRPerRL-1      INTEGER ::= 95  -- maxNrofCCTrCH*maxNrOfULTSLCRs-1
maxNrOfDPCHs768             INTEGER ::= 480
maxNrOfDPCHs768PerRL-1      INTEGER ::= 479
```

```
maxNrOfSCCPCHs              INTEGER ::= 8
maxNrOfSCCPCHsinExt         INTEGER ::= 232
maxNrOfSCCPCHs768           INTEGER ::= 480
maxNrOfDCHs                 INTEGER ::= 128
maxNrOfDSCHs                INTEGER ::= 32
maxNrOfFACHs                INTEGER ::= 8
maxNrOfCCTrCHs              INTEGER ::= 16
maxNrOfPDSCHs               INTEGER ::= 256
maxNrOfHSPDSCHs             INTEGER ::= 16
maxNrOfHSPDSCHs768          INTEGER ::= 32
maxNrOfPUSCHs               INTEGER ::= 256
maxNrOfPUSCHs-1             INTEGER ::= 255
maxNrOfPDSCHSets            INTEGER ::= 256
maxNrOfPRACHLCRs            INTEGER ::= 8
maxNrOfPUSCHSets            INTEGER ::= 256
maxNrOfSCCPCHLCRs           INTEGER ::= 8
maxNrOfSCCPCHsLCRinExt      INTEGER ::= 88
maxNrOfULTSs                INTEGER ::= 15
maxNrOfULTSLCRs             INTEGER ::= 6
maxNrOfUSCHs                INTEGER ::= 32
maxNrOfSlotFormatsPRACH     INTEGER ::= 8
maxCellinNodeB              INTEGER ::= 256
maxCCPinNodeB               INTEGER ::= 256
maxCTFC                     INTEGER ::= 16777215
maxLocalCellinNodeB         INTEGER ::= maxCellinNodeB
maxFPACHCell                INTEGER ::= 8
maxRACHCell                 INTEGER ::= maxPRACHCell
maxPLCCHCell                INTEGER ::= 16
maxPRACHCell                INTEGER ::= 16
maxSCCPCHCell               INTEGER ::= 32
maxSCCPCHCellinExt          INTEGER ::= 208 -- maxNrOfSCCPCHs + maxNrOfSCCPCHsinExt - maxSCCPCHCell
maxSCCPCHCellinExtLCR       INTEGER ::= 64  -- maxNrOfSCCPCHLCRs + maxNrOfSCCPCHsLCRinExt - maxSCCPCHCell
maxSCCPCHCell768            INTEGER ::= 480
maxSCPICHCell               INTEGER ::= 32
maxTTI-count                INTEGER ::= 4
maxIBSEG                    INTEGER ::= 16
maxIB                       INTEGER ::= 64
maxFACHCell                 INTEGER ::= 256 -- maxNrOfFACHs * maxSCCPCHCell
maxRateMatching             INTEGER ::= 256
maxHS-PDSCHCodeNrComp-1     INTEGER ::= 15
maxHS-SCCHCodeNrComp-1      INTEGER ::= 127
maxNrOfCellSyncBursts       INTEGER ::= 10
maxNrOfReceptsPerSyncFrame  INTEGER ::= 16
maxNrOfMeasNCell            INTEGER ::= 96
maxNrOfMeasNCell-1          INTEGER ::= 95  -- maxNrOfMeasNCell – 1
maxNrOfSF                   INTEGER ::= 8
maxTGPS                     INTEGER ::= 6
maxCommunicationContext     INTEGER ::= 1048575
maxNrOfLevels               INTEGER ::= 256
maxNoSat                    INTEGER ::= 16
maxNoGPSItems               INTEGER ::= 8
maxNrOfHSSCCHs              INTEGER ::= 32
maxNrOfHSSICHs              INTEGER ::= 4
maxNrOfHSSICHs-1            INTEGER ::= 3
```

```
maxNrOfSyncFramesLCR        INTEGER ::= 512
maxNrOfReceptionsperSyncFrameLCR    INTEGER ::= 8
maxNrOfSyncDLCodesLCR       INTEGER ::= 32
maxNrOfHSSCCHCodes              INTEGER ::= 4
maxNrOfMACdFlows                INTEGER ::= 8
maxNrOfMACdFlows-1              INTEGER ::= 7   -- maxNrOfMACdFlows - 1
maxNrOfMACdPDUIndexes           INTEGER ::= 8
maxNrOfMACdPDUIndexes-1         INTEGER ::= 7   -- maxNoOfMACdPDUIndexes - 1
maxNrOfMACdPDUSize              INTEGER ::= 32
maxNrOfNIs                      INTEGER ::= 256
maxNrOfPriorityQueues           INTEGER ::= 8
maxNrOfPriorityQueues-1         INTEGER ::= 7   -- maxNoOfPriorityQueues - 1
maxNrOfHARQProcesses            INTEGER ::= 8
maxNrOfContextsOnUeList         INTEGER ::= 16
maxNrOfCellPortionsPerCell      INTEGER ::= 64
maxNrOfCellPortionsPerCell-1    INTEGER ::= 63
maxNrOfPriorityClasses          INTEGER ::= 16
maxNrOfSatAlmanac-maxNoSat      INTEGER ::= 16  -- maxNrofSatAlmanac - maxNoSat
maxNrOfE-AGCHs                  INTEGER ::= 32
maxNrOfEDCHMACdFlows            INTEGER ::= 8
maxNrOfEDCHMACdFlows-1          INTEGER ::= 7
maxNrOfE-RGCHs-E-HICHs          INTEGER ::= 32
maxNrOfEDCH-HARQ-PO-QUANTSTEPs  INTEGER ::= 6
maxNrOfEDCHHARQProcesses2msEDCH INTEGER ::= 8
maxNrOfEDPCCH-PO-QUANTSTEPs     INTEGER ::= 8
maxNrOfBits-MACe-PDU-non-scheduled  INTEGER ::= 19982
maxNrOfRefETFCIs                INTEGER ::= 8
maxNrOfRefETFCI-PO-QUANTSTEPs   INTEGER ::= 29
maxNrofSigSeqRGHI-1             INTEGER ::= 39
maxNoOfLogicalChannels          INTEGER ::= 16 -- only maximum 15 can be used
maxNrOfCombEDPDCH               INTEGER ::= 12
maxE-RUCCHCell                  INTEGER ::= 16
maxNrOfEAGCHCodes               INTEGER ::= 4
maxNrOfRefBetas                 INTEGER ::= 8
maxNrOfE-PUCHSlots              INTEGER ::= 13
maxNrOfEAGCHs                   INTEGER ::= 32
maxNrOfHS-DSCH-TBSs-HS-SCCHless INTEGER ::= 4
maxNrOfHS-DSCH-TBSs             INTEGER ::= 90
maxNrOfEHICHCodes               INTEGER ::= 4
maxNrOfE-PUCHSlotsLCR           INTEGER ::= 5
maxNrOfEPUCHcodes               INTEGER ::= 16
maxNrOfEHICHs                   INTEGER ::= 32
maxNrOfCommonMACFlows           INTEGER ::= 8
maxNrOfCommonMACFlows-1         INTEGER ::= 7
maxNrOfPagingMACFlow            INTEGER ::= 4
maxNrOfPagingMACFlow-1          INTEGER ::= 3
maxNrOfcommonMACQueues          INTEGER ::= 8
maxNrOfpagingMACQueues          INTEGER ::= 8
maxNrOfHS-DSCHTBSsE-PCH         INTEGER ::= 2
maxGANSSSat                     INTEGER ::= 64
maxNoGANSS                      INTEGER ::= 8
maxSgnType                      INTEGER ::= 8
maxFrequencyinCell              INTEGER ::= 12
maxFrequencyinCell-1            INTEGER ::= 11
```

```
maxHSDPAFrequency               INTEGER ::= 8
maxHSDPAFrequency-1             INTEGER ::= 7
maxNrOfHSSCCHsinExt             INTEGER ::= 224
maxGANSSSatAlmanac              INTEGER ::= 36
maxGANSSClockMod                INTEGER ::= 4


-- **************************************************************
--
-- IEs
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-- **************************************************************

id-AICH-Information                                              ProtocolIE-ID ::= 0
id-AICH-InformationItem-ResourceStatusInd                        ProtocolIE-ID ::= 1
id-BCH-Information                                               ProtocolIE-ID ::= 7
id-BCH-InformationItem-ResourceStatusInd                         ProtocolIE-ID ::= 8
id-BCCH-ModificationTime                                         ProtocolIE-ID ::= 9
id-BlockingPriorityIndicator                                     ProtocolIE-ID ::= 10
id-Cause                                                         ProtocolIE-ID ::= 13
id-CCP-InformationItem-AuditRsp                                  ProtocolIE-ID ::= 14
id-CCP-InformationList-AuditRsp                                  ProtocolIE-ID ::= 15
id-CCP-InformationItem-ResourceStatusInd                         ProtocolIE-ID ::= 16
id-Cell-InformationItem-AuditRsp                                 ProtocolIE-ID ::= 17
id-Cell-InformationItem-ResourceStatusInd                        ProtocolIE-ID ::= 18
id-Cell-InformationList-AuditRsp                                 ProtocolIE-ID ::= 19
id-CellParameterID                                               ProtocolIE-ID ::= 23
id-CFN                                                           ProtocolIE-ID ::= 24
id-C-ID                                                          ProtocolIE-ID ::= 25
id-CommonMeasurementAccuracy                                     ProtocolIE-ID ::= 39
id-CommonMeasurementObjectType-CM-Rprt                           ProtocolIE-ID ::= 31
id-CommonMeasurementObjectType-CM-Rqst                           ProtocolIE-ID ::= 32
id-CommonMeasurementObjectType-CM-Rsp                            ProtocolIE-ID ::= 33
id-CommonMeasurementType                                         ProtocolIE-ID ::= 34
id-CommonPhysicalChannelID                                       ProtocolIE-ID ::= 35
id-CommonPhysicalChannelType-CTCH-SetupRqstFDD                   ProtocolIE-ID ::= 36
id-CommonPhysicalChannelType-CTCH-SetupRqstTDD                   ProtocolIE-ID ::= 37
id-CommunicationControlPortID                                    ProtocolIE-ID ::= 40
id-ConfigurationGenerationID                                     ProtocolIE-ID ::= 43
id-CRNC-CommunicationContextID                                   ProtocolIE-ID ::= 44
id-CriticalityDiagnostics                                        ProtocolIE-ID ::= 45
id-DCHs-to-Add-FDD                                               ProtocolIE-ID ::= 48
id-DCH-AddList-RL-ReconfPrepTDD                                  ProtocolIE-ID ::= 49
id-DCHs-to-Add-TDD                                               ProtocolIE-ID ::= 50
id-DCH-DeleteList-RL-ReconfPrepFDD                               ProtocolIE-ID ::= 52
id-DCH-DeleteList-RL-ReconfPrepTDD                               ProtocolIE-ID ::= 53
id-DCH-DeleteList-RL-ReconfRqstFDD                               ProtocolIE-ID ::= 54
id-DCH-DeleteList-RL-ReconfRqstTDD                               ProtocolIE-ID ::= 55
id-DCH-FDD-Information                                           ProtocolIE-ID ::= 56
id-DCH-TDD-Information                                           ProtocolIE-ID ::= 57
id-DCH-InformationResponse                                       ProtocolIE-ID ::= 59
id-FDD-DCHs-to-Modify                                            ProtocolIE-ID ::= 62
id-TDD-DCHs-to-Modify                                            ProtocolIE-ID ::= 63
id-DCH-ModifyList-RL-ReconfRqstTDD                               ProtocolIE-ID ::= 65
```

```
id-DCH-RearrangeList-Bearer-RearrangeInd                    ProtocolIE-ID ::= 135
id-DedicatedMeasurementObjectType-DM-Rprt                   ProtocolIE-ID ::= 67
id-DedicatedMeasurementObjectType-DM-Rqst                   ProtocolIE-ID ::= 68
id-DedicatedMeasurementObjectType-DM-Rsp                    ProtocolIE-ID ::= 69
id-DedicatedMeasurementType                                 ProtocolIE-ID ::= 70
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD                ProtocolIE-ID ::= 72
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD             ProtocolIE-ID ::= 73
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD                ProtocolIE-ID ::= 76
id-DL-DPCH-InformationItem-RL-AdditionRqstTDD               ProtocolIE-ID ::= 77
id-DL-DPCH-InformationList-RL-SetupRqstTDD                  ProtocolIE-ID ::= 79
id-DL-DPCH-Information-RL-ReconfPrepFDD                     ProtocolIE-ID ::= 81
id-DL-DPCH-Information-RL-ReconfRqstFDD                     ProtocolIE-ID ::= 82
id-DL-DPCH-Information-RL-SetupRqstFDD                      ProtocolIE-ID ::= 83
id-DL-DPCH-TimingAdjustment                                 ProtocolIE-ID ::= 21
id-DL-ReferencePowerInformationItem-DL-PC-Rqst              ProtocolIE-ID ::= 84
id-DLReferencePower                                         ProtocolIE-ID ::= 85
id-DLReferencePowerList-DL-PC-Rqst                          ProtocolIE-ID ::= 86
id-Unused-ProtocolIE-ID-87                                  ProtocolIE-ID ::= 87
id-Unused-ProtocolIE-ID-89                                  ProtocolIE-ID ::= 89
id-Unused-ProtocolIE-ID-91                                  ProtocolIE-ID ::= 91
id-Unused-ProtocolIE-ID-93                                  ProtocolIE-ID ::= 93
id-DSCHs-to-Add-TDD                                         ProtocolIE-ID ::= 96
id-DSCH-Information-DeleteList-RL-ReconfPrepTDD             ProtocolIE-ID ::= 98
id-DSCH-Information-ModifyList-RL-ReconfPrepTDD             ProtocolIE-ID ::= 100
id-DSCH-InformationResponse                                 ProtocolIE-ID ::= 105
id-Unused-ProtocolIE-ID-106                                 ProtocolIE-ID ::= 106
id-DSCH-TDD-Information                                     ProtocolIE-ID ::= 107
id-Unused-ProtocolIE-ID-108                                 ProtocolIE-ID ::= 108
id-Unused-ProtocolIE-ID-112                                 ProtocolIE-ID ::= 112
id-DSCH-RearrangeList-Bearer-RearrangeInd                   ProtocolIE-ID ::= 136
id-End-Of-Audit-Sequence-Indicator                          ProtocolIE-ID ::= 113
id-FACH-Information                                         ProtocolIE-ID ::= 116
id-FACH-InformationItem-ResourceStatusInd                   ProtocolIE-ID ::= 117
id-FACH-ParametersList-CTCH-ReconfRqstTDD                   ProtocolIE-ID ::= 120
id-FACH-ParametersListIE-CTCH-SetupRqstFDD                  ProtocolIE-ID ::= 121
id-FACH-ParametersListIE-CTCH-SetupRqstTDD                  ProtocolIE-ID ::= 122
id-IndicationType-ResourceStatusInd                         ProtocolIE-ID ::= 123
id-Local-Cell-ID                                            ProtocolIE-ID ::= 124
id-Local-Cell-Group-InformationItem-AuditRsp                ProtocolIE-ID ::= 2
id-Local-Cell-Group-InformationItem-ResourceStatusInd       ProtocolIE-ID ::= 3
id-Local-Cell-Group-InformationItem2-ResourceStatusInd      ProtocolIE-ID ::= 4
id-Local-Cell-Group-InformationList-AuditRsp                ProtocolIE-ID ::= 5
id-Local-Cell-InformationItem-AuditRsp                      ProtocolIE-ID ::= 125
id-Local-Cell-InformationItem-ResourceStatusInd             ProtocolIE-ID ::= 126
id-Local-Cell-InformationItem2-ResourceStatusInd            ProtocolIE-ID ::= 127
id-Local-Cell-InformationList-AuditRsp                      ProtocolIE-ID ::= 128
id-AdjustmentPeriod                                         ProtocolIE-ID ::= 129
id-MaxAdjustmentStep                                        ProtocolIE-ID ::= 130
id-MaximumTransmissionPower                                 ProtocolIE-ID ::= 131
id-MeasurementFilterCoefficient                             ProtocolIE-ID ::= 132
id-MeasurementID                                            ProtocolIE-ID ::= 133
id-MessageStructure                                         ProtocolIE-ID ::= 115
id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst          ProtocolIE-ID ::= 134
id-NodeB-CommunicationContextID                             ProtocolIE-ID ::= 143
```

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id-NeighbouringCellMeasurementInformation                    ProtocolIE-ID ::= 455
id-P-CCPCH-Information                                       ProtocolIE-ID ::= 144
id-P-CCPCH-InformationItem-ResourceStatusInd                 ProtocolIE-ID ::= 145
id-P-CPICH-Information                                       ProtocolIE-ID ::= 146
id-P-CPICH-InformationItem-ResourceStatusInd                 ProtocolIE-ID ::= 147
id-P-SCH-Information                                         ProtocolIE-ID ::= 148
id-PCCPCH-Information-Cell-ReconfRqstTDD                     ProtocolIE-ID ::= 150
id-PCCPCH-Information-Cell-SetupRqstTDD                      ProtocolIE-ID ::= 151
id-PCH-Parameters-CTCH-ReconfRqstTDD                         ProtocolIE-ID ::= 155
id-PCH-ParametersItem-CTCH-SetupRqstFDD                      ProtocolIE-ID ::= 156
id-PCH-ParametersItem-CTCH-SetupRqstTDD                      ProtocolIE-ID ::= 157
id-PCH-Information                                           ProtocolIE-ID ::= 158
id-PDSCH-Information-AddListIE-PSCH-ReconfRqst               ProtocolIE-ID ::= 161
id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst            ProtocolIE-ID ::= 162
id-PDSCHSets-AddList-PSCH-ReconfRqst                         ProtocolIE-ID ::= 163
id-PDSCHSets-DeleteList-PSCH-ReconfRqst                      ProtocolIE-ID ::= 164
id-PDSCHSets-ModifyList-PSCH-ReconfRqst                      ProtocolIE-ID ::= 165
id-PICH-Information                                          ProtocolIE-ID ::= 166
id-PICH-Parameters-CTCH-ReconfRqstTDD                        ProtocolIE-ID ::= 168
id-PowerAdjustmentType                                       ProtocolIE-ID ::= 169
id-PRACH-Information                                         ProtocolIE-ID ::= 170
id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD               ProtocolIE-ID ::= 175
id-PrimaryCCPCH-Information-Cell-SetupRqstFDD                ProtocolIE-ID ::= 176
id-PrimaryCPICH-Information-Cell-ReconfRqstFDD               ProtocolIE-ID ::= 177
id-PrimaryCPICH-Information-Cell-SetupRqstFDD                ProtocolIE-ID ::= 178
id-PrimarySCH-Information-Cell-ReconfRqstFDD                 ProtocolIE-ID ::= 179
id-PrimarySCH-Information-Cell-SetupRqstFDD                  ProtocolIE-ID ::= 180
id-PrimaryScramblingCode                                     ProtocolIE-ID ::= 181
id-SCH-Information-Cell-ReconfRqstTDD                        ProtocolIE-ID ::= 183
id-SCH-Information-Cell-SetupRqstTDD                         ProtocolIE-ID ::= 184
id-PUSCH-Information-AddListIE-PSCH-ReconfRqst               ProtocolIE-ID ::= 185
id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst            ProtocolIE-ID ::= 186
id-PUSCHSets-AddList-PSCH-ReconfRqst                         ProtocolIE-ID ::= 187
id-PUSCHSets-DeleteList-PSCH-ReconfRqst                      ProtocolIE-ID ::= 188
id-PUSCHSets-ModifyList-PSCH-ReconfRqst                      ProtocolIE-ID ::= 189
id-RACH-Information                                          ProtocolIE-ID ::= 190
id-RACH-ParametersItem-CTCH-SetupRqstFDD                     ProtocolIE-ID ::= 196
id-RACH-ParameterItem-CTCH-SetupRqstTDD                      ProtocolIE-ID ::= 197
id-ReportCharacteristics                                     ProtocolIE-ID ::= 198
id-Reporting-Object-RL-FailureInd                            ProtocolIE-ID ::= 199
id-Reporting-Object-RL-RestoreInd                            ProtocolIE-ID ::= 200
id-RL-InformationItem-DM-Rprt                                ProtocolIE-ID ::= 202
id-RL-InformationItem-DM-Rqst                                ProtocolIE-ID ::= 203
id-RL-InformationItem-DM-Rsp                                 ProtocolIE-ID ::= 204
id-RL-InformationItem-RL-AdditionRqstFDD                     ProtocolIE-ID ::= 205
id-RL-informationItem-RL-DeletionRqst                        ProtocolIE-ID ::= 206
id-RL-InformationItem-RL-FailureInd                          ProtocolIE-ID ::= 207
id-RL-InformationItem-RL-PreemptRequiredInd                  ProtocolIE-ID ::= 286
id-RL-InformationItem-RL-ReconfPrepFDD                       ProtocolIE-ID ::= 208
id-RL-InformationItem-RL-ReconfRqstFDD                       ProtocolIE-ID ::= 209
id-RL-InformationItem-RL-RestoreInd                          ProtocolIE-ID ::= 210
id-RL-InformationItem-RL-SetupRqstFDD                        ProtocolIE-ID ::= 211
id-RL-InformationList-RL-AdditionRqstFDD                     ProtocolIE-ID ::= 212
id-RL-informationList-RL-DeletionRqst                        ProtocolIE-ID ::= 213
```

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id-RL-InformationList-RL-PreemptRequiredInd                    ProtocolIE-ID ::= 237
id-RL-InformationList-RL-ReconfPrepFDD                         ProtocolIE-ID ::= 214
id-RL-InformationList-RL-ReconfRqstFDD                         ProtocolIE-ID ::= 215
id-RL-InformationList-RL-SetupRqstFDD                          ProtocolIE-ID ::= 216
id-RL-InformationResponseItem-RL-AdditionRspFDD                ProtocolIE-ID ::= 217
id-RL-InformationResponseItem-RL-ReconfReady                   ProtocolIE-ID ::= 218
id-RL-InformationResponseItem-RL-ReconfRsp                     ProtocolIE-ID ::= 219
id-RL-InformationResponseItem-RL-SetupRspFDD                   ProtocolIE-ID ::= 220
id-RL-InformationResponseList-RL-AdditionRspFDD                ProtocolIE-ID ::= 221
id-RL-InformationResponseList-RL-ReconfReady                   ProtocolIE-ID ::= 222
id-RL-InformationResponseList-RL-ReconfRsp                     ProtocolIE-ID ::= 223
id-RL-InformationResponseList-RL-SetupRspFDD                   ProtocolIE-ID ::= 224
id-RL-InformationResponse-RL-AdditionRspTDD                    ProtocolIE-ID ::= 225
id-RL-InformationResponse-RL-SetupRspTDD                       ProtocolIE-ID ::= 226
id-RL-Information-RL-AdditionRqstTDD                           ProtocolIE-ID ::= 227
id-RL-Information-RL-ReconfRqstTDD                             ProtocolIE-ID ::= 228
id-RL-Information-RL-ReconfPrepTDD                             ProtocolIE-ID ::= 229
id-RL-Information-RL-SetupRqstTDD                              ProtocolIE-ID ::= 230
id-RL-ReconfigurationFailureItem-RL-ReconfFailure              ProtocolIE-ID ::= 236
id-RL-Set-InformationItem-DM-Rprt                              ProtocolIE-ID ::= 238
id-RL-Set-InformationItem-DM-Rsp                               ProtocolIE-ID ::= 240
id-RL-Set-InformationItem-RL-FailureInd                        ProtocolIE-ID ::= 241
id-RL-Set-InformationItem-RL-RestoreInd                        ProtocolIE-ID ::= 242
id-S-CCPCH-Information                                         ProtocolIE-ID ::= 247
id-S-CPICH-Information                                         ProtocolIE-ID ::= 249
id-SCH-Information                                             ProtocolIE-ID ::= 251
id-S-SCH-Information                                           ProtocolIE-ID ::= 253
id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD                    ProtocolIE-ID ::= 257
id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD           ProtocolIE-ID ::= 258
id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD               ProtocolIE-ID ::= 259
id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD           ProtocolIE-ID ::= 260
id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD            ProtocolIE-ID ::= 261
id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD           ProtocolIE-ID ::= 262
id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD            ProtocolIE-ID ::= 263
id-SecondarySCH-Information-Cell-ReconfRqstFDD                 ProtocolIE-ID ::= 264
id-SecondarySCH-Information-Cell-SetupRqstFDD                  ProtocolIE-ID ::= 265
id-SegmentInformationListIE-SystemInfoUpdate                   ProtocolIE-ID ::= 266
id-SFN                                                         ProtocolIE-ID ::= 268
id-SignallingBearerRequestIndicator                            ProtocolIE-ID ::= 138
id-ShutdownTimer                                               ProtocolIE-ID ::= 269
id-Start-Of-Audit-Sequence-Indicator                           ProtocolIE-ID ::= 114
id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD     ProtocolIE-ID ::= 270
id-Successful-RL-InformationRespItem-RL-SetupFailureFDD        ProtocolIE-ID ::= 271
id-SyncCase                                                    ProtocolIE-ID ::= 274
id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH                ProtocolIE-ID ::= 275
id-T-Cell                                                      ProtocolIE-ID ::= 276
id-TargetCommunicationControlPortID                            ProtocolIE-ID ::= 139
id-TimeSlotConfigurationList-Cell-ReconfRqstTDD                ProtocolIE-ID ::= 277
id-TimeSlotConfigurationList-Cell-SetupRqstTDD                 ProtocolIE-ID ::= 278
id-TransmissionDiversityApplied                                ProtocolIE-ID ::= 279
id-TypeOfError                                                 ProtocolIE-ID ::= 508
id-UARFCNforNt                                                 ProtocolIE-ID ::= 280
id-UARFCNforNd                                                 ProtocolIE-ID ::= 281
id-UARFCNforNu                                                 ProtocolIE-ID ::= 282
```

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id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD                    ProtocolIE-ID ::= 284
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD                 ProtocolIE-ID ::= 285
id-UL-CCTrCH-InformationList-RL-SetupRqstTDD                    ProtocolIE-ID ::= 288
id-UL-DPCH-InformationItem-RL-AdditionRqstTDD                   ProtocolIE-ID ::= 289
id-UL-DPCH-InformationList-RL-SetupRqstTDD                      ProtocolIE-ID ::= 291
id-UL-DPCH-Information-RL-ReconfPrepFDD                         ProtocolIE-ID ::= 293
id-UL-DPCH-Information-RL-ReconfRqstFDD                         ProtocolIE-ID ::= 294
id-UL-DPCH-Information-RL-SetupRqstFDD                          ProtocolIE-ID ::= 295
id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD    ProtocolIE-ID ::= 296
id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD       ProtocolIE-ID ::= 297
id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD        ProtocolIE-ID ::= 300
id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD           ProtocolIE-ID ::= 301
id-USCH-Information-Add                                         ProtocolIE-ID ::= 302
id-USCH-Information-DeleteList-RL-ReconfPrepTDD                 ProtocolIE-ID ::= 304
id-USCH-Information-ModifyList-RL-ReconfPrepTDD                 ProtocolIE-ID ::= 306
id-USCH-InformationResponse                                     ProtocolIE-ID ::= 309
id-USCH-Information                                             ProtocolIE-ID ::= 310
id-USCH-RearrangeList-Bearer-RearrangeInd                       ProtocolIE-ID ::= 141
id-Active-Pattern-Sequence-Information                          ProtocolIE-ID ::= 315
id-AICH-ParametersListIE-CTCH-ReconfRqstFDD                     ProtocolIE-ID ::= 316
id-AdjustmentRatio                                              ProtocolIE-ID ::= 317
id-Not-Used-320                                                 ProtocolIE-ID ::= 320
id-Not-Used-322                                                 ProtocolIE-ID ::= 322
id-FACH-ParametersListIE-CTCH-ReconfRqstFDD                     ProtocolIE-ID ::= 323
id-CauseLevel-PSCH-ReconfFailure                                ProtocolIE-ID ::= 324
id-CauseLevel-RL-AdditionFailureFDD                             ProtocolIE-ID ::= 325
id-CauseLevel-RL-AdditionFailureTDD                             ProtocolIE-ID ::= 326
id-CauseLevel-RL-ReconfFailure                                  ProtocolIE-ID ::= 327
id-CauseLevel-RL-SetupFailureFDD                                ProtocolIE-ID ::= 328
id-CauseLevel-RL-SetupFailureTDD                                ProtocolIE-ID ::= 329
id-Not-Used-330                                                 ProtocolIE-ID ::= 330
id-Not-Used-332                                                 ProtocolIE-ID ::= 332
id-Closed-Loop-Timing-Adjustment-Mode                           ProtocolIE-ID ::= 333
id-CommonPhysicalChannelType-CTCH-ReconfRqstFDD                 ProtocolIE-ID ::= 334
id-Compressed-Mode-Deactivation-Flag                            ProtocolIE-ID ::= 335
id-Not-Used-336                                                 ProtocolIE-ID ::= 336
id-Not-Used-342                                                 ProtocolIE-ID ::= 342
id-Not-Used-343                                                 ProtocolIE-ID ::= 343
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD                ProtocolIE-ID ::= 346
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD             ProtocolIE-ID ::= 347
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD             ProtocolIE-ID ::= 348
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD             ProtocolIE-ID ::= 349
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD             ProtocolIE-ID ::= 350
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD             ProtocolIE-ID ::= 351
id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD             ProtocolIE-ID ::= 352
id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD                ProtocolIE-ID ::= 353
id-DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD         ProtocolIE-ID ::= 355
id-DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD      ProtocolIE-ID ::= 356
id-DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD      ProtocolIE-ID ::= 357
id-DL-TPC-Pattern01Count                                        ProtocolIE-ID ::= 358
id-DPC-Mode                                                     ProtocolIE-ID ::= 450
id-DPCHConstant                                                 ProtocolIE-ID ::= 359
id-Unused-ProtocolIE-ID-94                                      ProtocolIE-ID ::= 94
id-Unused-ProtocolIE-ID-110                                     ProtocolIE-ID ::= 110
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id-Unused-ProtocolIE-ID-111                                    ProtocolIE-ID ::= 111
id-FACH-ParametersList-CTCH-SetupRsp                           ProtocolIE-ID ::= 362
id-Limited-power-increase-information-Cell-SetupRqstFDD        ProtocolIE-ID ::= 369
id-PCH-Parameters-CTCH-SetupRsp                                ProtocolIE-ID ::= 374
id-PCH-ParametersItem-CTCH-ReconfRqstFDD                       ProtocolIE-ID ::= 375
id-Not-Used-376                                                ProtocolIE-ID ::= 376
id-PICH-ParametersItem-CTCH-ReconfRqstFDD                      ProtocolIE-ID ::= 380
id-PRACHConstant                                               ProtocolIE-ID ::= 381
id-PRACH-ParametersListIE-CTCH-ReconfRqstFDD                   ProtocolIE-ID ::= 383
id-PUSCHConstant                                               ProtocolIE-ID ::= 384
id-RACH-Parameters-CTCH-SetupRsp                               ProtocolIE-ID ::= 385
id-Unused-ProtocolIE-ID-443                                    ProtocolIE-ID ::= 443
id-Synchronisation-Configuration-Cell-ReconfRqst               ProtocolIE-ID ::= 393
id-Synchronisation-Configuration-Cell-SetupRqst                ProtocolIE-ID ::= 394
id-Transmission-Gap-Pattern-Sequence-Information               ProtocolIE-ID ::= 395
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD               ProtocolIE-ID ::= 396
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD            ProtocolIE-ID ::= 397
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD            ProtocolIE-ID ::= 398
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD            ProtocolIE-ID ::= 399
id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD            ProtocolIE-ID ::= 400
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD            ProtocolIE-ID ::= 401
id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD            ProtocolIE-ID ::= 402
id-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD               ProtocolIE-ID ::= 403
id-UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD        ProtocolIE-ID ::= 405
id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD     ProtocolIE-ID ::= 406
id-UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD     ProtocolIE-ID ::= 407
id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD             ProtocolIE-ID ::= 408
id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD             ProtocolIE-ID ::= 409
id-CommunicationContextInfoItem-Reset                          ProtocolIE-ID ::= 412
id-CommunicationControlPortInfoItem-Reset                      ProtocolIE-ID ::= 414
id-ResetIndicator                                              ProtocolIE-ID ::= 416
id-Unused-ProtocolIE-ID-417                                    ProtocolIE-ID ::= 417
id-Unused-ProtocolIE-ID-418                                    ProtocolIE-ID ::= 418
id-Unused-ProtocolIE-ID-419                                    ProtocolIE-ID ::= 419
id-Unused-ProtocolIE-ID-142                                    ProtocolIE-ID ::= 142
id-TimingAdvanceApplied                                        ProtocolIE-ID ::= 287
id-CFNReportingIndicator                                       ProtocolIE-ID ::= 6
id-SFNReportingIndicator                                       ProtocolIE-ID ::= 11
id-InnerLoopDLPCStatus                                         ProtocolIE-ID ::= 12
id-TimeslotISCPInfo                                            ProtocolIE-ID ::= 283
id-PICH-ParametersItem-CTCH-SetupRqstTDD                       ProtocolIE-ID ::= 167
id-PRACH-ParametersItem-CTCH-SetupRqstTDD                      ProtocolIE-ID ::= 20
id-CCTrCH-InformationItem-RL-FailureInd                        ProtocolIE-ID ::= 46
id-CCTrCH-InformationItem-RL-RestoreInd                        ProtocolIE-ID ::= 47
id-CauseLevel-SyncAdjustmntFailureTDD                          ProtocolIE-ID ::= 420
id-CellAdjustmentInfo-SyncAdjustmntRqstTDD                     ProtocolIE-ID ::= 421
id-CellAdjustmentInfoItem-SyncAdjustmentRqstTDD                ProtocolIE-ID ::= 494
id-CellSyncBurstInfoList-CellSyncReconfRqstTDD                 ProtocolIE-ID ::= 482
id-CellSyncBurstTransInit-CellSyncInitiationRqstTDD            ProtocolIE-ID ::= 422
id-CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD          ProtocolIE-ID ::= 423
id-CellSyncBurstTransReconfiguration-CellSyncReconfRqstTDD     ProtocolIE-ID ::= 424
id-CellSyncBurstMeasReconfiguration-CellSyncReconfRqstTDD      ProtocolIE-ID ::= 425
id-CellSyncBurstTransInfoList-CellSyncReconfRqstTDD            ProtocolIE-ID ::= 426
id-CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD             ProtocolIE-ID ::= 427
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id-CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD              ProtocolIE-ID ::= 428
id-CellSyncInfo-CellSyncReprtTDD                                   ProtocolIE-ID ::= 429
id-CSBTransmissionID                                               ProtocolIE-ID ::= 430
id-CSBMeasurementID                                                ProtocolIE-ID ::= 431
id-IntStdPhCellSyncInfoItem-CellSyncReprtTDD                       ProtocolIE-ID ::= 432
id-NCyclesPerSFNperiod                                             ProtocolIE-ID ::= 433
id-NRepetitionsPerCyclePeriod                                      ProtocolIE-ID ::= 434
id-SyncFrameNumber                                                 ProtocolIE-ID ::= 437
id-SynchronisationReportType                                       ProtocolIE-ID ::= 438
id-SynchronisationReportCharacteristics                            ProtocolIE-ID ::= 439
id-Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD   ProtocolIE-ID ::= 440
id-LateEntranceCellSyncInfoItem-CellSyncReprtTDD                   ProtocolIE-ID ::= 119
id-ReferenceClockAvailability                                      ProtocolIE-ID ::= 435
id-ReferenceSFNoffset                                              ProtocolIE-ID ::= 436
id-InformationExchangeID                                           ProtocolIE-ID ::= 444
id-InformationExchangeObjectType-InfEx-Rqst                        ProtocolIE-ID ::= 445
id-InformationType                                                 ProtocolIE-ID ::= 446
id-InformationReportCharacteristics                                ProtocolIE-ID ::= 447
id-InformationExchangeObjectType-InfEx-Rsp                         ProtocolIE-ID ::= 448
id-InformationExchangeObjectType-InfEx-Rprt                        ProtocolIE-ID ::= 449
id-IPDLParameter-Information-Cell-ReconfRqstFDD                    ProtocolIE-ID ::= 451
id-IPDLParameter-Information-Cell-SetupRqstFDD                     ProtocolIE-ID ::= 452
id-IPDLParameter-Information-Cell-ReconfRqstTDD                    ProtocolIE-ID ::= 453
id-IPDLParameter-Information-Cell-SetupRqstTDD                     ProtocolIE-ID ::= 454
id-DL-DPCH-LCR-Information-RL-SetupRqstTDD                         ProtocolIE-ID ::= 74
id-DwPCH-LCR-Information                                           ProtocolIE-ID ::= 78
id-DwPCH-LCR-InformationList-AuditRsp                              ProtocolIE-ID ::= 90
id-DwPCH-LCR-Information-Cell-SetupRqstTDD                         ProtocolIE-ID ::= 97
id-DwPCH-LCR-Information-Cell-ReconfRqstTDD                        ProtocolIE-ID ::= 99
id-DwPCH-LCR-Information-ResourceStatusInd                         ProtocolIE-ID ::= 101
id-maxFACH-Power-LCR-CTCH-SetupRqstTDD                             ProtocolIE-ID ::= 154
id-maxFACH-Power-LCR-CTCH-ReconfRqstTDD                            ProtocolIE-ID ::= 174
id-FPACH-LCR-Information                                           ProtocolIE-ID ::= 290
id-FPACH-LCR-Information-AuditRsp                                  ProtocolIE-ID ::= 292
id-FPACH-LCR-InformationList-AuditRsp                              ProtocolIE-ID ::= 22
id-FPACH-LCR-InformationList-ResourceStatusInd                     ProtocolIE-ID ::= 311
id-FPACH-LCR-Parameters-CTCH-SetupRqstTDD                          ProtocolIE-ID ::= 312
id-FPACH-LCR-Parameters-CTCH-ReconfRqstTDD                         ProtocolIE-ID ::= 314
id-PCCPCH-LCR-Information-Cell-SetupRqstTDD                        ProtocolIE-ID ::= 456
id-PCH-Power-LCR-CTCH-SetupRqstTDD                                 ProtocolIE-ID ::= 457
id-PCH-Power-LCR-CTCH-ReconfRqstTDD                                ProtocolIE-ID ::= 458
id-PICH-LCR-Parameters-CTCH-SetupRqstTDD                           ProtocolIE-ID ::= 459
id-PRACH-LCR-ParametersList-CTCH-SetupRqstTDD                      ProtocolIE-ID ::= 461
id-RL-InformationResponse-LCR-RL-SetupRspTDD                       ProtocolIE-ID ::= 463
id-Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD             ProtocolIE-ID ::= 465
id-TimeSlot                                                        ProtocolIE-ID ::= 495
id-TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD                ProtocolIE-ID ::= 466
id-TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD                 ProtocolIE-ID ::= 467
id-TimeslotISCP-LCR-InfoList-RL-SetupRqstTDD                       ProtocolIE-ID ::= 468
id-TimeSlotLCR-CM-Rqst                                             ProtocolIE-ID ::= 469
id-UL-DPCH-LCR-Information-RL-SetupRqstTDD                         ProtocolIE-ID ::= 470
id-DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD                  ProtocolIE-ID ::= 472
id-UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD                  ProtocolIE-ID ::= 473
id-TimeslotISCP-InformationList-LCR-RL-AdditionRqstTDD             ProtocolIE-ID ::= 474
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id-DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD                  ProtocolIE-ID ::= 475
id-DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD           ProtocolIE-ID ::= 477
id-DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD    ProtocolIE-ID ::= 479
id-TimeslotISCPInfoList-LCR-DL-PC-RqstTDD                           ProtocolIE-ID ::= 480
id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfPrepTDD                ProtocolIE-ID ::= 481
id-UL-DPCH-LCR-InformationModify-AddList                            ProtocolIE-ID ::= 483
id-UL-TimeslotLCR-Information-RL-ReconfPrepTDD                      ProtocolIE-ID ::= 485
id-UL-SIRTarget                                                     ProtocolIE-ID ::= 510
id-PDSCH-AddInformation-LCR-PSCH-ReconfRqst                         ProtocolIE-ID ::= 486
id-PDSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst               ProtocolIE-ID ::= 487
id-Unused-ProtocolIE-ID-26                                          ProtocolIE-ID ::=  26
id-Unused-ProtocolIE-ID-27                                          ProtocolIE-ID ::=  27
id-PDSCH-ModifyInformation-LCR-PSCH-ReconfRqst                      ProtocolIE-ID ::= 488
id-PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst         ProtocolIE-ID ::= 489
id-PUSCH-AddInformation-LCR-PSCH-ReconfRqst                         ProtocolIE-ID ::= 490
id-PUSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst               ProtocolIE-ID ::= 491
id-PUSCH-ModifyInformation-LCR-PSCH-ReconfRqst                      ProtocolIE-ID ::= 492
id-PUSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst         ProtocolIE-ID ::= 493
id-timeslotInfo-CellSyncInitiationRqstTDD                           ProtocolIE-ID ::= 496
id-SyncReportType-CellSyncReprtTDD                                  ProtocolIE-ID ::= 497
id-Power-Local-Cell-Group-InformationItem-AuditRsp                  ProtocolIE-ID ::= 498
id-Power-Local-Cell-Group-InformationItem-ResourceStatusInd         ProtocolIE-ID ::= 499
id-Power-Local-Cell-Group-InformationItem2-ResourceStatusInd        ProtocolIE-ID ::= 500
id-Power-Local-Cell-Group-InformationList-AuditRsp                  ProtocolIE-ID ::= 501
id-Power-Local-Cell-Group-InformationList-ResourceStatusInd         ProtocolIE-ID ::= 502
id-Power-Local-Cell-Group-InformationList2-ResourceStatusInd        ProtocolIE-ID ::= 503
id-Power-Local-Cell-Group-ID                                        ProtocolIE-ID ::= 504
id-PUSCH-Info-DM-Rqst                                               ProtocolIE-ID ::= 505
id-PUSCH-Info-DM-Rsp                                                ProtocolIE-ID ::= 506
id-PUSCH-Info-DM-Rprt                                               ProtocolIE-ID ::= 507
id-InitDL-Power                                                     ProtocolIE-ID ::= 509
id-cellSyncBurstRepetitionPeriod                                    ProtocolIE-ID ::= 511
id-ReportCharacteristicsType-OnModification                         ProtocolIE-ID ::= 512
id-SFNSFNMeasurementValueInformation                                ProtocolIE-ID ::= 513
id-SFNSFNMeasurementThresholdInformation                            ProtocolIE-ID ::= 514
id-TUTRANGPSMeasurementValueInformation                             ProtocolIE-ID ::= 515
id-TUTRANGPSMeasurementThresholdInformation                         ProtocolIE-ID ::= 516
id-Rx-Timing-Deviation-Value-LCR                                    ProtocolIE-ID ::= 520
id-RL-InformationResponse-LCR-RL-AdditionRspTDD                     ProtocolIE-ID ::= 51
id-DL-PowerBalancing-Information                                    ProtocolIE-ID ::= 28
id-DL-PowerBalancing-ActivationIndicator                            ProtocolIE-ID ::= 29
id-DL-PowerBalancing-UpdatedIndicator                               ProtocolIE-ID ::= 30
id-CCTrCH-Initial-DL-Power-RL-SetupRqstTDD                          ProtocolIE-ID ::= 517
id-CCTrCH-Initial-DL-Power-RL-AdditionRqstTDD                       ProtocolIE-ID ::= 518
id-CCTrCH-Initial-DL-Power-RL-ReconfPrepTDD                         ProtocolIE-ID ::= 519
id-IPDLParameter-Information-LCR-Cell-SetupRqstTDD                  ProtocolIE-ID ::= 41
id-IPDLParameter-Information-LCR-Cell-ReconfRqstTDD                 ProtocolIE-ID ::= 42
id-HS-PDSCH-HS-SCCH-E-AGCH-E-RGCH-E-HICH-MaxPower-PSCH-ReconfRqst   ProtocolIE-ID ::= 522
id-HS-PDSCH-HS-SCCH-ScramblingCode-PSCH-ReconfRqst                  ProtocolIE-ID ::= 523
id-HS-PDSCH-FDD-Code-Information-PSCH-ReconfRqst                    ProtocolIE-ID ::= 524
id-HS-SCCH-FDD-Code-Information-PSCH-ReconfRqst                     ProtocolIE-ID ::= 525
id-HS-PDSCH-TDD-Information-PSCH-ReconfRqst                         ProtocolIE-ID ::= 526
id-Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst                     ProtocolIE-ID ::= 527
id-Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst                     ProtocolIE-ID ::= 528
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id-Delete-From-HS-SCCH-Resource-Pool-PSCH-ReconfRqst                ProtocolIE-ID ::= 529
id-bindingID                                                        ProtocolIE-ID ::= 102
id-RL-Specific-DCH-Info                                             ProtocolIE-ID ::= 103
id-transportlayeraddress                                            ProtocolIE-ID ::= 104
id-DelayedActivation                                                ProtocolIE-ID ::= 231
id-DelayedActivationList-RL-ActivationCmdFDD                        ProtocolIE-ID ::= 232
id-DelayedActivationInformation-RL-ActivationCmdFDD                 ProtocolIE-ID ::= 233
id-DelayedActivationList-RL-ActivationCmdTDD                        ProtocolIE-ID ::= 234
id-DelayedActivationInformation-RL-ActivationCmdTDD                 ProtocolIE-ID ::= 235
id-neighbouringTDDCellMeasurementInformationLCR                     ProtocolIE-ID ::= 58
id-SYNCDlCodeId-TransInitLCR-CellSyncInitiationRqstTDD              ProtocolIE-ID ::= 543
id-SYNCDlCodeId-MeasureInitLCR-CellSyncInitiationRqstTDD            ProtocolIE-ID ::= 544
id-SYNCDlCodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD             ProtocolIE-ID ::= 545
id-SYNCDlCodeIdMeasReconfigurationLCR-CellSyncReconfRqstTDD         ProtocolIE-ID ::= 546
id-SYNCDlCodeIdMeasInfoList-CellSyncReconfRqstTDD                   ProtocolIE-ID ::= 547
id-SyncDLCodeIdsMeasInfoList-CellSyncReprtTDD                       ProtocolIE-ID ::= 548
id-SyncDLCodeIdThreInfoLCR                                          ProtocolIE-ID ::= 549
id-NSubCyclesPerCyclePeriod-CellSyncReconfRqstTDD                   ProtocolIE-ID ::= 550
id-DwPCH-Power                                                      ProtocolIE-ID ::= 551
id-AccumulatedClockupdate-CellSyncReprtTDD                          ProtocolIE-ID ::= 552
id-Angle-Of-Arrival-Value-LCR                                       ProtocolIE-ID ::= 521
id-HSDSCH-FDD-Information                                           ProtocolIE-ID ::= 530
id-HSDSCH-FDD-Information-Response                                  ProtocolIE-ID ::= 531
id-HSDSCH-Information-to-Modify                                     ProtocolIE-ID ::= 534
id-HSDSCH-RNTI                                                      ProtocolIE-ID ::= 535
id-HSDSCH-TDD-Information                                           ProtocolIE-ID ::= 536
id-HSDSCH-TDD-Information-Response                                  ProtocolIE-ID ::= 537
id-HSPDSCH-RL-ID                                                    ProtocolIE-ID ::= 541
id-PrimCCPCH-RSCP-DL-PC-RqstTDD                                     ProtocolIE-ID ::= 542
id-Unused-ProtocolIE-ID-64                                          ProtocolIE-ID ::= 64
id-PDSCH-RL-ID                                                      ProtocolIE-ID ::= 66
id-HSDSCH-RearrangeList-Bearer-RearrangeInd                         ProtocolIE-ID ::= 553
id-UL-Synchronisation-Parameters-LCR                                ProtocolIE-ID ::= 554
id-HSDSCH-FDD-Update-Information                                    ProtocolIE-ID ::= 555
id-HSDSCH-TDD-Update-Information                                    ProtocolIE-ID ::= 556
id-DL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD           ProtocolIE-ID ::= 558
id-UL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD           ProtocolIE-ID ::= 559
id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD                       ProtocolIE-ID ::= 560
id-TDD-TPC-UplinkStepSize-LCR-RL-AdditionRqstTDD                    ProtocolIE-ID ::= 561
id-TDD-TPC-DownlinkStepSize-RL-AdditionRqstTDD                      ProtocolIE-ID ::= 562
id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD       ProtocolIE-ID ::= 563
id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD    ProtocolIE-ID ::= 564
id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD      ProtocolIE-ID ::= 565
id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD         ProtocolIE-ID ::= 566
id-CCTrCH-Maximum-DL-Power-RL-SetupRqstTDD                          ProtocolIE-ID ::= 567
id-CCTrCH-Minimum-DL-Power-RL-SetupRqstTDD                          ProtocolIE-ID ::= 568
id-CCTrCH-Maximum-DL-Power-RL-AdditionRqstTDD                       ProtocolIE-ID ::= 569
id-CCTrCH-Minimum-DL-Power-RL-AdditionRqstTDD                       ProtocolIE-ID ::= 570
id-CCTrCH-Maximum-DL-Power-InformationAdd-RL-ReconfPrepTDD          ProtocolIE-ID ::= 571
id-CCTrCH-Minimum-DL-Power-InformationAdd-RL-ReconfPrepTDD          ProtocolIE-ID ::= 572
id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfPrepTDD       ProtocolIE-ID ::= 573
id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfPrepTDD       ProtocolIE-ID ::= 574
id-Maximum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD   ProtocolIE-ID ::= 575
id-Minimum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD   ProtocolIE-ID ::= 576
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id-DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD        ProtocolIE-ID ::= 577
id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfRqstTDD       ProtocolIE-ID ::= 578
id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfRqstTDD       ProtocolIE-ID ::= 579
id-Initial-DL-Power-TimeslotLCR-InformationItem                     ProtocolIE-ID ::= 580
id-Maximum-DL-Power-TimeslotLCR-InformationItem                     ProtocolIE-ID ::= 581
id-Minimum-DL-Power-TimeslotLCR-InformationItem                     ProtocolIE-ID ::= 582
id-HS-DSCHProvidedBitRateValueInformation                           ProtocolIE-ID ::= 583
id-HS-DSCHRequiredPowerValueInformation                             ProtocolIE-ID ::= 585
id-HS-DSCHRequiredPowerValue                                        ProtocolIE-ID ::= 586
id-TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmission            ProtocolIE-ID ::= 587
id-HS-SICH-Reception-Quality                                        ProtocolIE-ID ::= 588
id-HS-SICH-Reception-Quality-Measurement-Value                      ProtocolIE-ID ::= 589
id-HSSICH-Info-DM-Rprt                                              ProtocolIE-ID ::= 590
id-HSSICH-Info-DM-Rqst                                              ProtocolIE-ID ::= 591
id-HSSICH-Info-DM-Rsp                                               ProtocolIE-ID ::= 592
id-Best-Cell-Portions-Value                                         ProtocolIE-ID ::= 593
id-Primary-CPICH-Usage-for-Channel-Estimation                       ProtocolIE-ID ::= 594
id-Secondary-CPICH-Information-Change                               ProtocolIE-ID ::= 595
id-NumberOfReportedCellPortions                                     ProtocolIE-ID ::= 596
id-CellPortion-InformationItem-Cell-SetupRqstFDD                    ProtocolIE-ID ::= 597
id-CellPortion-InformationList-Cell-SetupRqstFDD                    ProtocolIE-ID ::= 598
id-TimeslotISCP-LCR-InfoList-RL-ReconfPrepTDD                       ProtocolIE-ID ::= 599
id-Secondary-CPICH-Information                                      ProtocolIE-ID ::= 600
id-Received-total-wide-band-power-For-CellPortion                   ProtocolIE-ID ::= 601
id-Unidirectional-DCH-Indicator                                     ProtocolIE-ID ::= 602
id-TimingAdjustmentValueLCR                                         ProtocolIE-ID ::= 603
id-multipleRL-dl-DPCH-InformationList                               ProtocolIE-ID ::= 604
id-multipleRL-dl-DPCH-InformationModifyList                         ProtocolIE-ID ::= 605
id-multipleRL-ul-DPCH-InformationList                               ProtocolIE-ID ::= 606
id-multipleRL-ul-DPCH-InformationModifyList                         ProtocolIE-ID ::= 607
id-RL-ID                                                            ProtocolIE-ID ::= 608
id-SAT-Info-Almanac-ExtItem                                         ProtocolIE-ID ::= 609
id-HSDPA-Capability                                                 ProtocolIE-ID ::= 610
id-HSDSCH-Resources-Information-AuditRsp                            ProtocolIE-ID ::= 611
id-HSDSCH-Resources-Information-ResourceStatusInd                   ProtocolIE-ID ::= 612
id-HSDSCH-MACdFlows-to-Add                                          ProtocolIE-ID ::= 613
id-HSDSCH-MACdFlows-to-Delete                                       ProtocolIE-ID ::= 614
id-HSDSCH-Information-to-Modify-Unsynchronised                      ProtocolIE-ID ::= 615
id-TnlQos                                                           ProtocolIE-ID ::= 616
id-Received-total-wide-band-power-For-CellPortion-Value             ProtocolIE-ID ::= 617
id-Transmitted-Carrier-Power-For-CellPortion                        ProtocolIE-ID ::= 618
id-Transmitted-Carrier-Power-For-CellPortion-Value                  ProtocolIE-ID ::= 619
id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortion           ProtocolIE-ID ::= 620
id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue   ProtocolIE-ID ::= 621
id-UpPTSInterferenceValue                                           ProtocolIE-ID ::= 622
id-PrimaryCCPCH-RSCP-Delta                                          ProtocolIE-ID ::= 623
id-MeasurementRecoveryBehavior                                      ProtocolIE-ID ::= 624
id-MeasurementRecoveryReportingIndicator                            ProtocolIE-ID ::= 625
id-MeasurementRecoverySupportIndicator                              ProtocolIE-ID ::= 626
id-Tstd-indicator                                                   ProtocolIE-ID ::= 627
id-multiple-RL-Information-RL-ReconfPrepTDD                         ProtocolIE-ID ::= 628
id-multiple-RL-Information-RL-ReconfRqstTDD                         ProtocolIE-ID ::= 629
id-DL-DPCH-Power-Information-RL-ReconfPrepFDD                       ProtocolIE-ID ::= 630
id-F-DPCH-Information-RL-ReconfPrepFDD                              ProtocolIE-ID ::= 631
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id-F-DPCH-Information-RL-SetupRqstFDD                          ProtocolIE-ID ::= 632
id-Additional-S-CCPCH-Parameters-CTCH-ReconfRqstTDD            ProtocolIE-ID ::= 633
id-Additional-S-CCPCH-Parameters-CTCH-SetupRqstTDD             ProtocolIE-ID ::= 634
id-Additional-S-CCPCH-LCR-Parameters-CTCH-ReconfRqstTDD        ProtocolIE-ID ::= 635
id-Additional-S-CCPCH-LCR-Parameters-CTCH-SetupRqstTDD         ProtocolIE-ID ::= 636
id-MICH-CFN                                                    ProtocolIE-ID ::= 637
id-MICH-Information-AuditRsp                                   ProtocolIE-ID ::= 638
id-MICH-Information-ResourceStatusInd                          ProtocolIE-ID ::= 639
id-MICH-Parameters-CTCH-ReconfRqstFDD                          ProtocolIE-ID ::= 640
id-MICH-Parameters-CTCH-ReconfRqstTDD                          ProtocolIE-ID ::= 641
id-MICH-Parameters-CTCH-SetupRqstFDD                           ProtocolIE-ID ::= 642
id-MICH-Parameters-CTCH-SetupRqstTDD                           ProtocolIE-ID ::= 643
id-Modification-Period                                         ProtocolIE-ID ::= 644
id-NI-Information-NotifUpdateCmd                               ProtocolIE-ID ::= 645
id-S-CCPCH-InformationListExt-AuditRsp                         ProtocolIE-ID ::= 646
id-S-CCPCH-InformationListExt-ResourceStatusInd                ProtocolIE-ID ::= 647
id-S-CCPCH-LCR-InformationListExt-AuditRsp                     ProtocolIE-ID ::= 648
id-S-CCPCH-LCR-InformationListExt-ResourceStatusInd            ProtocolIE-ID ::= 649
id-HARQ-Preamble-Mode                                          ProtocolIE-ID ::= 650
id-Initial-DL-DPCH-TimingAdjustment                            ProtocolIE-ID ::= 651
id-Initial-DL-DPCH-TimingAdjustment-Allowed                    ProtocolIE-ID ::= 652
id-DLTransmissionBranchLoadValue                               ProtocolIE-ID ::= 653
id-Power-Local-Cell-Group-choice-CM-Rqst                       ProtocolIE-ID ::= 654
id-Power-Local-Cell-Group-choice-CM-Rsp                        ProtocolIE-ID ::= 655
id-Power-Local-Cell-Group-choice-CM-Rprt                       ProtocolIE-ID ::= 656
id-SynchronisationIndicator                                    ProtocolIE-ID ::= 657
id-HSDPA-And-EDCH-CellPortion-Information-PSCH-ReconfRqst      ProtocolIE-ID ::= 658
id-Unused-ProtocolIE-ID-659                                    ProtocolIE-ID ::= 659
id-HS-DSCHRequiredPowerValue-For-Cell-Portion                  ProtocolIE-ID ::= 660
id-HS-DSCHRequiredPowerValueInformation-For-CellPortion        ProtocolIE-ID ::= 661
id-HS-DSCHProvidedBitRateValueInformation-For-CellPortion      ProtocolIE-ID ::= 662
id-E-AGCH-And-E-RGCH-E-HICH-FDD-Scrambling-Code                ProtocolIE-ID ::= 663
id-E-AGCH-FDD-Code-Information                                 ProtocolIE-ID ::= 664
id-E-DCH-Capability                                            ProtocolIE-ID ::= 665
id-E-DCH-FDD-DL-Control-Channel-Information                    ProtocolIE-ID ::= 666
id-E-DCH-FDD-Information                                       ProtocolIE-ID ::= 667
id-E-DCH-FDD-Information-Response                              ProtocolIE-ID ::= 668
id-E-DCH-FDD-Information-to-Modify                             ProtocolIE-ID ::= 669
id-E-DCH-MACdFlows-to-Add                                      ProtocolIE-ID ::= 670
id-E-DCH-MACdFlows-to-Delete                                   ProtocolIE-ID ::= 671
id-E-DCH-Resources-Information-AuditRsp                        ProtocolIE-ID ::= 672
id-E-DCH-Resources-Information-ResourceStatusInd               ProtocolIE-ID ::= 673
id-E-DCH-RL-Indication                                         ProtocolIE-ID ::= 674
id-E-DCH-RL-Set-ID                                             ProtocolIE-ID ::= 675
id-E-DPCH-Information-RL-ReconfPrepFDD                         ProtocolIE-ID ::= 676
id-E-DPCH-Information-RL-SetupRqstFDD                          ProtocolIE-ID ::= 677
id-E-RGCH-E-HICH-FDD-Code-Information                          ProtocolIE-ID ::= 678
id-Serving-E-DCH-RL-ID                                         ProtocolIE-ID ::= 679
id-UL-DPDCH-Indicator-For-E-DCH-Operation                      ProtocolIE-ID ::= 680
id-FDD-S-CCPCH-FrameOffset-CTCH-SetupRqstFDD                   ProtocolIE-ID ::= 681
id-E-DPCH-Information-RL-ReconfRqstFDD                         ProtocolIE-ID ::= 682
id-Maximum-Target-ReceivedTotalWideBandPower                   ProtocolIE-ID ::= 683
id-E-DCHProvidedBitRateValueInformation                        ProtocolIE-ID ::= 684
id-HARQ-Preamble-Mode-Activation-Indicator                     ProtocolIE-ID ::= 685
```

```
id-RL-Specific-E-DCH-Info                                   ProtocolIE-ID ::= 686
id-E-DCH-CapacityConsumptionLaw                             ProtocolIE-ID ::= 687
id-multiple-DedicatedMeasurementValueList-TDD-DM-Rsp        ProtocolIE-ID ::= 688
id-multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp    ProtocolIE-ID ::= 689
id-E-DCH-RearrangeList-Bearer-RearrangeInd                  ProtocolIE-ID ::= 690
id-Unused-ProtocolIE-ID-691                                 ProtocolIE-ID ::= 691
id-multipleRL-dl-CCTrCH-InformationModifyList-RL-ReconfRqstTDD  ProtocolIE-ID ::= 692
id-Target-NonServing-EDCH-To-Total-EDCH-Power-Ratio         ProtocolIE-ID ::= 693
id-CellPortion-InformationItem-Cell-ReconfRqstFDD           ProtocolIE-ID ::= 694
id-CellPortion-InformationList-Cell-ReconfRqstFDD           ProtocolIE-ID ::= 695
id-multiple-PUSCH-InfoList-DM-Rsp                           ProtocolIE-ID ::= 696
id-multiple-PUSCH-InfoList-DM-Rprt                          ProtocolIE-ID ::= 697
id-Reference-ReceivedTotalWideBandPower                     ProtocolIE-ID ::= 698
id-E-DCH-Serving-Cell-Change-Info-Response                  ProtocolIE-ID ::= 699
id-HS-DSCH-Serving-Cell-Change-Info                         ProtocolIE-ID ::= 700
id-HS-DSCH-Serving-Cell-Change-Info-Response                ProtocolIE-ID ::= 701
id-Serving-Cell-Change-CFN                                  ProtocolIE-ID ::= 702
id-E-DCH-HARQ-Combining-Capability                          ProtocolIE-ID ::= 703
id-E-DCH-TTI2ms-Capability                                  ProtocolIE-ID ::= 704
id-E-DCH-SF-Capability                                      ProtocolIE-ID ::= 705
id-E-DCH-FDD-Update-Information                             ProtocolIE-ID ::= 706
id-F-DPCH-Capability                                        ProtocolIE-ID ::= 707
id-E-DCH-Non-serving-Relative-Grant-Down-CommandsValue       ProtocolIE-ID ::= 708
id-HSSICH-SIRTarget                                         ProtocolIE-ID ::= 709
id-multiple-HSSICHMeasurementValueList-TDD-DM-Rsp           ProtocolIE-ID ::= 710
id-PLCCH-Information-AuditRsp                               ProtocolIE-ID ::= 711
id-PLCCH-Information-ResourceStatusInd                      ProtocolIE-ID ::= 712
id-PLCCH-Information-RL-ReconfPrepTDDLCR                    ProtocolIE-ID ::= 713
id-PLCCH-Information-UL-TimeslotLCR-Info                    ProtocolIE-ID ::= 714
id-PLCCH-InformationList-AuditRsp                           ProtocolIE-ID ::= 715
id-PLCCH-InformationList-ResourceStatusInd                  ProtocolIE-ID ::= 716
id-PLCCH-Parameters-CTCH-ReconfRqstTDD                      ProtocolIE-ID ::= 717
id-S-CCPCH-768-Parameters-CTCH-SetupRqstTDD                 ProtocolIE-ID ::= 718
id-PICH-768-Parameters-CTCH-SetupRqstTDD                    ProtocolIE-ID ::= 719
id-PRACH-768-Parameters-CTCH-SetupRqstTDD                   ProtocolIE-ID ::= 720
id-S-CCPCH-768-Parameters-CTCH-ReconfRqstTDD                ProtocolIE-ID ::= 721
id-PICH-768-Parameters-CTCH-ReconfRqstTDD                   ProtocolIE-ID ::= 722
id-MICH-768-Parameters-CTCH-ReconfRqstTDD                   ProtocolIE-ID ::= 723
id-CommonPhysicalChannelID768-CommonTrChDeletionReq         ProtocolIE-ID ::= 724
id-S-CCPCH-768-InformationList-AuditRsp                     ProtocolIE-ID ::= 725
id-S-CCPCH-768-Information-AuditRsp                         ProtocolIE-ID ::= 726
id-neighbouringTDDCellMeasurementInformation768             ProtocolIE-ID ::= 727
id-PCCPCH-768-Information-Cell-SetupRqstTDD                 ProtocolIE-ID ::= 728
id-SCH-768-Information-Cell-SetupRqstTDD                    ProtocolIE-ID ::= 729
id-SCH-768-Information-Cell-ReconfRqstTDD                   ProtocolIE-ID ::= 730
id-PCCPCH-768-Information-Cell-ReconfRqstTDD                ProtocolIE-ID ::= 731
id-P-CCPCH-768-Information-AuditRsp                         ProtocolIE-ID ::= 732
id-PICH-768-Information-AuditRsp                            ProtocolIE-ID ::= 733
id-PRACH-768-InformationList-AuditRsp                       ProtocolIE-ID ::= 734
id-SCH-768-Information-AuditRsp                             ProtocolIE-ID ::= 735
id-MICH-768-Information-AuditRsp                            ProtocolIE-ID ::= 736
id-PRACH-768-Information                                    ProtocolIE-ID ::= 737
id-S-CCPCH-768-Information-ResourceStatusInd                ProtocolIE-ID ::= 738
id-P-CCPCH-768-Information-ResourceStatusInd                ProtocolIE-ID ::= 739
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id-PICH-768-Information-ResourceStatusInd                          ProtocolIE-ID ::= 740
id-PRACH-768-InformationList-ResourceStatusInd                     ProtocolIE-ID ::= 741
id-SCH-768-Information-ResourceStatusInd                           ProtocolIE-ID ::= 742
id-MICH-768-Information-ResourceStatusInd                          ProtocolIE-ID ::= 743
id-S-CCPCH-768-InformationList-ResourceStatusInd                   ProtocolIE-ID ::= 744
id-UL-DPCH-768-Information-RL-SetupRqstTDD                         ProtocolIE-ID ::= 745
id-DL-DPCH-768-Information-RL-SetupRqstTDD                         ProtocolIE-ID ::= 746
id-DL-DPCH-InformationItem-768-RL-AdditionRqstTDD                  ProtocolIE-ID ::= 747
id-UL-DPCH-InformationItem-768-RL-AdditionRqstTDD                  ProtocolIE-ID ::= 748
id-UL-DPCH-768-InformationAddItemIE-RL-ReconfPrepTDD               ProtocolIE-ID ::= 749
id-UL-DPCH-768-InformationAddListIE-RL-ReconfPrepTDD               ProtocolIE-ID ::= 750
id-UL-DPCH-768-InformationModify-AddItem                           ProtocolIE-ID ::= 751
id-UL-DPCH-768-InformationModify-AddList                           ProtocolIE-ID ::= 752
id-UL-Timeslot768-Information-RL-ReconfPrepTDD                     ProtocolIE-ID ::= 753
id-DL-DPCH-768-InformationAddItem-RL-ReconfPrepTDD                 ProtocolIE-ID ::= 754
id-DL-DPCH-768-InformationAddList-RL-ReconfPrepTDD                 ProtocolIE-ID ::= 755
id-DL-DPCH-768-InformationModify-AddItem-RL-ReconfPrepTDD          ProtocolIE-ID ::= 756
id-DL-DPCH-768-InformationModify-AddList-RL-ReconfPrepTDD          ProtocolIE-ID ::= 757
id-DL-Timeslot-768-InformationModify-ModifyList-RL-ReconfPrepTDD   ProtocolIE-ID ::= 758
id-DPCH-ID768-DM-Rqst                                              ProtocolIE-ID ::= 759
id-multiple-DedicatedMeasurementValueList-768-TDD-DM-Rsp           ProtocolIE-ID ::= 760
id-DPCH-ID768-DM-Rsp                                               ProtocolIE-ID ::= 761
id-Rx-Timing-Deviation-Value-768                                   ProtocolIE-ID ::= 762
id-DPCH-ID768-DM-Rprt                                              ProtocolIE-ID ::= 763
id-PDSCH-AddInformation-768-PSCH-ReconfRqst                        ProtocolIE-ID ::= 764
id-PDSCH-ModifyInformation-768-PSCH-ReconfRqst                     ProtocolIE-ID ::= 765
id-PUSCH-AddInformation-768-PSCH-ReconfRqst                        ProtocolIE-ID ::= 766
id-PUSCH-ModifyInformation-768-PSCH-ReconfRqst                     ProtocolIE-ID ::= 767
id-dL-HS-PDSCH-Timeslot-Information-768-PSCH-ReconfRqst            ProtocolIE-ID ::= 768
id-hS-SCCH-Information-768-PSCH-ReconfRqst                         ProtocolIE-ID ::= 769
id-hS-SCCH-InformationModify-768-PSCH-ReconfRqst                   ProtocolIE-ID ::= 770
id-hsSCCH-Specific-Information-ResponseTDD768                      ProtocolIE-ID ::= 771
id-E-DPCH-Information-RL-AdditionReqFDD                            ProtocolIE-ID ::= 772
id-PDSCH-Timeslot-Format-PSCH-ReconfRqst-LCR                       ProtocolIE-ID ::= 775
id-PUSCH-Timeslot-Format-PSCH-ReconfRqst-LCR                       ProtocolIE-ID ::= 780
id-E-DCH-PowerOffset-for-SchedulingInfo                            ProtocolIE-ID ::= 782
id-HSDSCH-Configured-Indicator                                     ProtocolIE-ID ::= 783
id-Rx-Timing-Deviation-Value-384-ext                               ProtocolIE-ID ::= 786
id-RTWP-ReportingIndicator                                         ProtocolIE-ID ::= 787
id-RTWP-CellPortion-ReportingIndicator                             ProtocolIE-ID ::= 788
id-Received-Scheduled-EDCH-Power-Share-Value                       ProtocolIE-ID ::= 789
id-Received-Scheduled-EDCH-Power-Share-For-CellPortion-Value       ProtocolIE-ID ::= 790
id-Received-Scheduled-EDCH-Power-Share                             ProtocolIE-ID ::= 791
id-Received-Scheduled-EDCH-Power-Share-For-CellPortion             ProtocolIE-ID ::= 792
id-tFCI-Presence                                                   ProtocolIE-ID ::= 793
id-HSSICH-TPC-StepSize                                             ProtocolIE-ID ::= 794
id-E-RUCCH-InformationList-AuditRsp                                ProtocolIE-ID ::= 795
id-E-RUCCH-InformationList-ResourceStatusInd                       ProtocolIE-ID ::= 796
id-E-DCH-TDD-CapacityConsumptionLaw                                ProtocolIE-ID ::= 797
id-E-RUCCH-Information                                             ProtocolIE-ID ::= 798
id-E-DCH-Information                                               ProtocolIE-ID ::= 799
id-E-DCH-Information-Response                                      ProtocolIE-ID ::= 800
id-E-DCH-Information-Reconfig                                      ProtocolIE-ID ::= 801
id-E-PUCH-Information-PSCH-ReconfRqst                              ProtocolIE-ID ::= 802
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id-Add-To-E-AGCH-Resource-Pool-PSCH-ReconfRqst                    ProtocolIE-ID ::= 803
id-Modify-E-AGCH-Resource-Pool-PSCH-ReconfRqst                    ProtocolIE-ID ::= 804
id-Delete-From-E-AGCH-Resource-Pool-PSCH-ReconfRqst               ProtocolIE-ID ::= 805
id-E-HICH-Information-PSCH-ReconfRqst                             ProtocolIE-ID ::= 806
id-E-HICH-TimeOffset                                              ProtocolIE-ID ::= 807
id-Maximum-Generated-ReceivedTotalWideBandPowerInOtherCells       ProtocolIE-ID ::= 808
id-E-DCH-Serving-RL-ID                                            ProtocolIE-ID ::= 809
id-E-RUCCH-768-InformationList-AuditRsp                           ProtocolIE-ID ::= 810
id-E-RUCCH-768-InformationList-ResourceStatusInd                  ProtocolIE-ID ::= 811
id-E-RUCCH-768-Information                                        ProtocolIE-ID ::= 812
id-E-DCH-768-Information                                          ProtocolIE-ID ::= 813
id-E-DCH-768-Information-Reconfig                                 ProtocolIE-ID ::= 814
id-E-PUCH-Information-768-PSCH-ReconfRqst                         ProtocolIE-ID ::= 815
id-Add-To-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst                ProtocolIE-ID ::= 816
id-Modify-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst                ProtocolIE-ID ::= 817
id-E-HICH-Information-768-PSCH-ReconfRqst                         ProtocolIE-ID ::= 818
id-ExtendedPropagationDelay                                       ProtocolIE-ID ::= 819
id-Extended-Round-Trip-Time-Value                                 ProtocolIE-ID ::= 820
id-AlternativeFormatReportingIndicator                            ProtocolIE-ID ::= 821
id-DCH-Indicator-For-E-DCH-HSDPA-Operation                        ProtocolIE-ID ::= 822
id-Reference-ReceivedTotalWideBandPowerReporting                  ProtocolIE-ID ::= 823
id-Reference-ReceivedTotalWideBandPowerSupportIndicator           ProtocolIE-ID ::= 824
id-ueCapability-Info                                              ProtocolIE-ID ::= 825
id-MAChs-ResetIndicator                                           ProtocolIE-ID ::= 826
id-Fast-Reconfiguration-Mode                                      ProtocolIE-ID ::= 827
id-Fast-Reconfiguration-Permission                                ProtocolIE-ID ::= 828
id-BroadcastReference                                             ProtocolIE-ID ::= 829
id-BroadcastCommonTransportBearerIndication                       ProtocolIE-ID ::= 830
id-ContinuousPacketConnectivityDTX-DRX-Capability                 ProtocolIE-ID ::= 831
id-ContinuousPacketConnectivityDTX-DRX-Information                ProtocolIE-ID ::= 832
id-ContinuousPacketConnectivityHS-SCCH-less-Capability            ProtocolIE-ID ::= 833
id-ContinuousPacketConnectivityHS-SCCH-less-Information            ProtocolIE-ID ::= 834
id-ContinuousPacketConnectivityHS-SCCH-less-Information-Response   ProtocolIE-ID ::= 835
id-CPC-Information                                                ProtocolIE-ID ::= 836
id-MIMO-Capability                                                ProtocolIE-ID ::= 837
id-MIMO-PilotConfiguration                                        ProtocolIE-ID ::= 838
id-MBSFN-Cell-ParameterID-Cell-SetupRqstTDD                       ProtocolIE-ID ::= 841
id-MBSFN-Cell-ParameterID-Cell-ReconfRqstTDD                      ProtocolIE-ID ::= 842
id-S-CCPCH-Modulation                                             ProtocolIE-ID ::= 843
id-HS-PDSCH-Code-Change-Grant                                     ProtocolIE-ID ::= 844
id-HS-PDSCH-Code-Change-Indicator                                 ProtocolIE-ID ::= 845
id-SYNC-UL-Partition-LCR                                          ProtocolIE-ID ::= 846
id-E-DCH-LCR-Information                                          ProtocolIE-ID ::= 847
id-E-DCH-LCR-Information-Reconfig                                 ProtocolIE-ID ::= 848
id-E-PUCH-Information-LCR-PSCH-ReconfRqst                         ProtocolIE-ID ::= 852
id-Add-To-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst                ProtocolIE-ID ::= 853
id-Modify-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst                ProtocolIE-ID ::= 854
id-Add-To-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst                ProtocolIE-ID ::= 855
id-Modify-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst                ProtocolIE-ID ::= 856
id-Delete-From-E-HICH-Resource-Pool-PSCH-ReconfRqst               ProtocolIE-ID ::= 857
id-E-HICH-TimeOffsetLCR                                           ProtocolIE-ID ::= 858
id-SixtyfourQAM-DL-Capability                                     ProtocolIE-ID ::= 860
id-SixteenQAM-UL-Capability                                       ProtocolIE-ID ::= 861
id-HSDSCH-MACdPDU-SizeCapability                                  ProtocolIE-ID ::= 864
```

```
id-HSDSCH-MACdPDUSizeFormat                                          ProtocolIE-ID ::= 865
id-MaximumMACdPDU-SizeExtended                                       ProtocolIE-ID ::= 866
id-F-DPCH-SlotFormat                                                 ProtocolIE-ID ::= 870
id-F-DPCH-SlotFormatCapability                                       ProtocolIE-ID ::= 871
id-LCRTDD-uplink-Physical-Channel-Capability                         ProtocolIE-ID ::= 872
id-Extended-RNC-ID                                                   ProtocolIE-ID ::= 873
id-Max-UE-DTX-Cycle                                                  ProtocolIE-ID ::= 874
id-Secondary-CCPCH-SlotFormat-Extended                               ProtocolIE-ID ::= 876
id-MBSFN-Only-Mode-Indicator-Cell-SetupRqstTDD-LCR                   ProtocolIE-ID ::= 878
id-MBSFN-Only-Mode-Capability                                        ProtocolIE-ID ::= 879
id-Time-Slot-Parameter-ID                                            ProtocolIE-ID ::= 880
id-Additional-failed-HS-SICH                                         ProtocolIE-ID ::= 881
id-Additional-missed-HS-SICH                                         ProtocolIE-ID ::= 882
id-Additional-total-HS-SICH                                          ProtocolIE-ID ::= 883
id-Additional-HS-SICH-Reception-Quality-Measurement-Value            ProtocolIE-ID ::= 884
id-GANSS-Common-Data                                                 ProtocolIE-ID ::= 887
id-GANSS-Information                                                 ProtocolIE-ID ::= 888
id-GANSS-Generic-Data                                                ProtocolIE-ID ::= 889
id-TUTRANGANSSMeasurementThresholdInformation                        ProtocolIE-ID ::= 890
id-TUTRANGANSSMeasurementValueInformation                            ProtocolIE-ID ::= 891
id-ModulationPO-MBSFN                                                ProtocolIE-ID ::= 892
id-Enhanced-FACH-Capability                                          ProtocolIE-ID ::= 895
id-Enhanced-PCH-Capability                                           ProtocolIE-ID ::= 896
id-HSDSCH-Common-System-InformationFDD                               ProtocolIE-ID ::= 897
id-HSDSCH-Common-System-Information-ResponseFDD                      ProtocolIE-ID ::= 898
id-HSDSCH-Paging-System-InformationFDD                               ProtocolIE-ID ::= 899
id-HSDSCH-Paging-System-Information-ResponseFDD                      ProtocolIE-ID ::= 900
id-MBMS-Capability                                                   ProtocolIE-ID ::= 901
id-Ext-Reference-E-TFCI-PO                                           ProtocolIE-ID ::= 902
id-Ext-Max-Bits-MACe-PDU-non-scheduled                               ProtocolIE-ID ::= 903
id-HARQ-MemoryPartitioningInfoExtForMIMO                             ProtocolIE-ID ::= 904
id-MIMO-ActivationIndicator                                          ProtocolIE-ID ::= 905
id-MIMO-Mode-Indicator                                               ProtocolIE-ID ::= 906
id-MIMO-N-M-Ratio                                                    ProtocolIE-ID ::= 907
id-IPMulticastIndication                                             ProtocolIE-ID ::= 908
id-IPMulticastDataBearerIndication                                   ProtocolIE-ID ::= 909
id-TransportBearerNotSetupIndicator                                  ProtocolIE-ID ::= 910
id-TransportBearerNotRequestedIndicator                              ProtocolIE-ID ::= 911
id-TimeSlotConfigurationList-LCR-CTCH-SetupRqstTDD                   ProtocolIE-ID ::= 912
id-Cell-Frequency-List-Information-LCR-MulFreq-AuditRsp              ProtocolIE-ID ::= 913
id-Cell-Frequency-List-InformationItem-LCR-MulFreq-AuditRsp          ProtocolIE-ID ::= 914
id-Cell-Frequency-List-LCR-MulFreq-Cell-SetupRqstTDD                 ProtocolIE-ID ::= 915
id-UARFCN-Adjustment                                                 ProtocolIE-ID ::= 916
id-Cell-Frequency-List-Information-LCR-MulFreq-ResourceStatusInd     ProtocolIE-ID ::= 917
id-Cell-Frequency-List-InformationItem-LCR-MulFreq-ResourceStatusInd    ProtocolIE-ID ::= 918
id-UPPCHPositionLCR                                                  ProtocolIE-ID ::= 919
id-UPPCH-LCR-Parameters-CTCH-ReconfRqstTDD                           ProtocolIE-ID ::= 920
id-UPPCH-LCR-InformationList-AuditRsp                                ProtocolIE-ID ::= 921
id-UPPCH-LCR-InformationItem-AuditRsp                                ProtocolIE-ID ::= 922
id-UPPCH-LCR-InformationList-ResourceStatusInd                       ProtocolIE-ID ::= 923
id-UPPCH-LCR-InformationItem-ResourceStatusInd                       ProtocolIE-ID ::= 924
id-multipleFreq-dL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst    ProtocolIE-ID ::= 925
id-number-Of-Supported-Carriers                                      ProtocolIE-ID ::= 926
id-multipleFreq-HSPDSCH-InformationList-ResponseTDDLCR               ProtocolIE-ID ::= 927
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id-Unsuccessful-UARFCNItem-PSCH-ReconfFailureTDD                    ProtocolIE-ID ::= 928
id-multipleFreq-HS-DSCH-Resources-InformationList-AuditRsp          ProtocolIE-ID ::= 929
id-multipleFreq-HS-DSCH-Resources-InformationList-ResourceStatusInd ProtocolIE-ID ::= 930
id-UARFCNSpecificCauseList                                          ProtocolIE-ID ::= 931
id-tSN-Length                                                       ProtocolIE-ID ::= 932
id-MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst    ProtocolIE-ID ::= 933
id-multicarrier-number                                              ProtocolIE-ID ::= 934
id-Extended-HS-SCCH-ID                                              ProtocolIE-ID ::= 935
id-Extended-HS-SICH-ID                                              ProtocolIE-ID ::= 936
id-HSSICH-InfoExt-DM-Rqst                                           ProtocolIE-ID ::= 937
id-Delete-From-HS-SCCH-Resource-PoolExt-PSCH-ReconfRqst             ProtocolIE-ID ::= 938
id-HS-SCCH-InformationExt-LCR-PSCH-ReconfRqst                       ProtocolIE-ID ::= 939
id-HS-SCCH-InformationModifyExt-LCR-PSCH-ReconfRqst                 ProtocolIE-ID ::= 940
id-PowerControlGAP                                                  ProtocolIE-ID ::= 941
id-MBSFN-SpecialTimeSlot-LCR                                        ProtocolIE-ID ::= 942
id-Common-MACFlows-to-DeleteFDD                                     ProtocolIE-ID ::= 943
id-Paging-MACFlows-to-DeleteFDD                                     ProtocolIE-ID ::= 944
id-E-TFCI-Boost-Information                                         ProtocolIE-ID ::= 945
id-SixteenQAM-UL-Operation-Indicator                                ProtocolIE-ID ::= 946
id-SixtyfourQAM-UsageAllowedIndicator                               ProtocolIE-ID ::= 947
id-SixtyfourQAM-DL-UsageIndicator                                   ProtocolIE-ID ::= 948
id-Default-Serving-Grant-in-DTX-Cycle2                              ProtocolIE-ID ::= 949
id-Maximum-Target-ReceivedTotalWideBandPower-LCR                    ProtocolIE-ID ::= 950
id-E-DPDCH-PowerInterpolation                                       ProtocolIE-ID ::= 951
id-Extended-E-DCH-LCRTDD-PhysicalLayerCategory                      ProtocolIE-ID ::= 952
id-MultipleFreq-E-DCH-Resources-InformationList-AuditRsp            ProtocolIE-ID ::= 953
id-MultipleFreq-E-DCH-Resources-InformationList-ResourceStatusInd   ProtocolIE-ID ::= 954
id-MultipleFreq-E-PUCH-Timeslot-InformationList-LCR-PSCH-ReconfRqst ProtocolIE-ID ::= 955
id-MultipleFreq-E-PUCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst ProtocolIE-ID ::= 956
id-Extended-E-HICH-ID-TDD                                           ProtocolIE-ID ::= 957
id-ContinuousPacketConnectivityHS-SCCH-less-Deactivate-Indicator    ProtocolIE-ID ::= 958

END
```

9.3.7 Container Definitions

```
-- **************************************************************
--
-- Container definitions
--
-- **************************************************************

NBAP-Containers {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-Containers (5) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- IE parameter types from other modules.
```

```
--
-- **************************************************************

IMPORTS
    maxProtocolExtensions,
    maxPrivateIEs,
    maxProtocolIEs,
    Criticality,
    Presence,
    PrivateIE-ID,
    ProtocolIE-ID
FROM NBAP-CommonDataTypes;

-- **************************************************************
--
-- Class Definition for Protocol IEs
--
-- **************************************************************

NBAP-PROTOCOL-IES ::= CLASS {
    &id     ProtocolIE-ID           UNIQUE,
    &criticality    Criticality,
    &Value,
    &presence   Presence
}
WITH SYNTAX {
    ID      &id
    CRITICALITY &criticality
    TYPE        &Value
    PRESENCE    &presence
}

-- **************************************************************
--
-- Class Definition for Protocol IEs
--
-- **************************************************************

NBAP-PROTOCOL-IES-PAIR ::= CLASS {
    &id         ProtocolIE-ID           UNIQUE,
    &firstCriticality   Criticality,
    &FirstValue,
    &secondCriticality  Criticality,
    &SecondValue,
    &presence       Presence
}
WITH SYNTAX {
    ID          &id
    FIRST CRITICALITY   &firstCriticality
    FIRST TYPE      &FirstValue
    SECOND CRITICALITY  &secondCriticality
    SECOND TYPE     &SecondValue
    PRESENCE        &presence
}
```

```
-- **************************************************************
--
-- Class Definition for Protocol Extensions
--
-- **************************************************************

NBAP-PROTOCOL-EXTENSION ::= CLASS {
    &id     ProtocolIE-ID       UNIQUE,
    &criticality    Criticality,
    &Extension,
    &presence       Presence
}
WITH SYNTAX {
    ID      &id
    CRITICALITY &criticality
    EXTENSION   &Extension
    PRESENCE    &presence
}

-- **************************************************************
--
-- Class Definition for Private IEs
--
-- **************************************************************

NBAP-PRIVATE-IES ::= CLASS {
    &id     PrivateIE-ID,
    &criticality    Criticality,
    &Value,
    &presence       Presence
}
WITH SYNTAX {
    ID      &id
    CRITICALITY &criticality
    TYPE    &Value
    PRESENCE    &presence
}

-- **************************************************************
--
-- Container for Protocol IEs
--
-- **************************************************************

ProtocolIE-Container {NBAP-PROTOCOL-IES : IEsSetParam} ::=
    SEQUENCE (SIZE (0..maxProtocolIEs)) OF
    ProtocolIE-Field {{IEsSetParam}}

ProtocolIE-Single-Container {NBAP-PROTOCOL-IES : IEsSetParam} ::=
    ProtocolIE-Field {{IEsSetParam}}

ProtocolIE-Field {NBAP-PROTOCOL-IES : IEsSetParam} ::= SEQUENCE {
    id      NBAP-PROTOCOL-IES.&id       ({IEsSetParam}),
```

```
    criticality     NBAP-PROTOCOL-IES.&criticality  ({IEsSetParam}{@id}),
    value       NBAP-PROTOCOL-IES.&Value     ({IEsSetParam}{@id})
}

-- **************************************************************
--
-- Container for Protocol IE Pairs
--
-- **************************************************************

ProtocolIE-ContainerPair {NBAP-PROTOCOL-IES-PAIR : IEsSetParam} ::=
    SEQUENCE (SIZE (0..maxProtocolIEs)) OF
    ProtocolIE-FieldPair {{IEsSetParam}}

ProtocolIE-FieldPair {NBAP-PROTOCOL-IES-PAIR : IEsSetParam} ::= SEQUENCE {
    id              NBAP-PROTOCOL-IES-PAIR.&id          ({IEsSetParam}),
    firstCriticality        NBAP-PROTOCOL-IES-PAIR.&firstCriticality    ({IEsSetParam}{@id}),
    firstValue          NBAP-PROTOCOL-IES-PAIR.&FirstValue  ({IEsSetParam}{@id}),
    secondCriticality       NBAP-PROTOCOL-IES-PAIR.&secondCriticality   ({IEsSetParam}{@id}),
    secondValue         NBAP-PROTOCOL-IES-PAIR.&SecondValue ({IEsSetParam}{@id})
}

-- **************************************************************
--
-- Container Lists for Protocol IE Containers
--
-- **************************************************************

ProtocolIE-ContainerList {INTEGER : lowerBound, INTEGER : upperBound, NBAP-PROTOCOL-IES : IEsSetParam} ::=
    SEQUENCE (SIZE (lowerBound..upperBound)) OF
    ProtocolIE-Container {{IEsSetParam}}

ProtocolIE-ContainerPairList {INTEGER : lowerBound, INTEGER : upperBound, NBAP-PROTOCOL-IES-PAIR : IEsSetParam} ::=
    SEQUENCE (SIZE (lowerBound..upperBound)) OF
    ProtocolIE-ContainerPair {{IEsSetParam}}

-- **************************************************************
--
-- Container for Protocol Extensions
--
-- **************************************************************

ProtocolExtensionContainer {NBAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::=
    SEQUENCE (SIZE (1..maxProtocolExtensions)) OF
    ProtocolExtensionField {{ExtensionSetParam}}

ProtocolExtensionField {NBAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::= SEQUENCE {
    id      NBAP-PROTOCOL-EXTENSION.&id ({ExtensionSetParam}),
    criticality NBAP-PROTOCOL-EXTENSION.&criticality    ({ExtensionSetParam}{@id}),
    extensionValue  NBAP-PROTOCOL-EXTENSION.&Extension  ({ExtensionSetParam}{@id})
}

-- **************************************************************
--
```

```
-- Container for Private IEs
--
-- ************************************************************

PrivateIE-Container {NBAP-PRIVATE-IES : IEsSetParam} ::=
    SEQUENCE (SIZE (1..maxPrivateIEs)) OF
    PrivateIE-Field {{IEsSetParam}}

PrivateIE-Field {NBAP-PRIVATE-IES : IEsSetParam} ::= SEQUENCE {
    id          NBAP-PRIVATE-IES.&id
    ({IEsSetParam}),
    criticality         NBAP-PRIVATE-IES.&criticality
    ({IEsSetParam}{@id}),
    value       NBAP-PRIVATE-IES.&Value
    ({IEsSetParam}{@id})
}

END
```

9.4 Message Transfer Syntax

NBAP shall use the ASN.1 Basic Packed Encoding Rules (BASIC-PER) Aligned Variant as transfer syntax as specified in ref. [11].

9.5 Timers

$T_{Preempt}$

- Specifies the maximum time that a Node B may wait for pre-emption of resources for establishment or reconfiguration of Radio Links.

10 Handling of Unknown, Unforeseen and Erroneous Protocol Data

10.1 General

Protocol Error cases can be divided into three classes:

- Transfer Syntax Error
- Abstract Syntax Error
- Logical Error

Protocol errors can occur in the following functions within a receiving node:

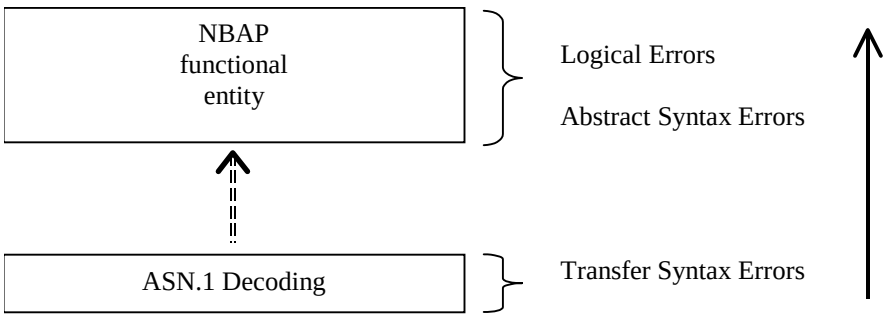


Figure 38: Protocol Errors in NBAP.

The information stated in subclauses 10.2, 10.3 and 10.4, to be included in the message used when reporting an error, is what at minimum shall be included. Other optional information elements within the message may also be included, if available. This is also valid for the case when the reporting is done with a response message. The latter is an exception to what is stated in subclause 4.1.

10.2 Transfer Syntax Error

A Transfer Syntax Error occurs when the receiver is not able to decode the received physical message. Transfer syntax errors are always detected in the process of ASN.1 decoding. If a Transfer Syntax Error occurs, the receiver should initiate Error Indication procedure with appropriate cause value for the Transfer Syntax protocol error.

Examples for Transfer Syntax Errors are:

- Violation of value ranges in ASN.1 definition of messages. e.g.: If an IE has a defined value range of 0 to 10 (ASN.1: INTEGER (0..10)), and 12 will be received, then this will be treated as a transfer syntax error.

- Violation in list element constraints. e.g.: If a list is defined as containing 1 to 10 elements, and 12 elements will be received, than this case will be handled as a transfer syntax error.
- Missing mandatory elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message).
- Wrong order of elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message).

10.3 Abstract Syntax Error

10.3.1 General

An Abstract Syntax Error occurs when the receiving functional NBAP entity:

1. receives IEs or IE groups that cannot be understood (unknown id);
2. receives IEs for which the logical range is violated (e.g.: ASN.1 definition: 0 to 15, the logical range is 0 to 10 (values 11 to 15 are undefined), and 12 will be received; this case will be handled as an abstract syntax error using criticality information sent by the originator of the message);
3. does not receive IEs or IE groups but according to the specified presence of the concerned object, the IEs or IE groups should have been present in the received message;
4. receives IEs or IE groups that are defined to be part of that message in wrong order or with too many occurrences of the same IE or IE group;
5. receives IEs or IE groups but according to the conditional presence of the concerned object and the specified condition, the IEs or IE groups should not have been present in the received message.

Cases 1 and 2 (not comprehended IE/IE group) are handled based on received Criticality information. Case 3 (missing IE/IE group) is handled based on Criticality information and Presence information for the missing IE/IE group specified in the version of the specification used by the receiver. Case 4 (IEs or IE groups in wrong order or with too many occurrences) and Case 5 (erroneously present conditional IEs or IE groups) result in rejecting the procedure.

If an Abstract Syntax Error occurs, the receiver shall read the remaining message and shall then for each detected Abstract Syntax Error that belong to cases 1-3 act according to the Criticality Information and Presence Information for the IE/IE group due to which Abstract Syntax Error occurred in accordance with subclauses 10.3.4 and 10.3.5. The handling of cases 4 and 5 is specified in subclause 10.3.6.

10.3.2 Criticality Information

In the NBAP messages there is criticality information set for individual IEs and/or IE groups. This criticality information instructs the receiver how to act when receiving an IE or an IE group that is not comprehended, i.e. the entire item (IE or IE group) which is not (fully or partially) comprehended shall be treated in accordance with its own criticality information as specified in subclause 10.3.4.

In addition, the criticality information is used in case of the missing IE/IE group abstract syntax error (see subclause 10.3.5).

The receiving node shall take different actions depending on the value of the Criticality Information. The three possible values of the Criticality Information for an IE/IE group are:

- Reject IE
- Ignore IE and Notify Sender
- Ignore IE

The following rules restrict when a receiving entity may consider an IE, an IE group or an EP not comprehended (not implemented), and when action based on criticality information is applicable:

1. IE or IE group: When one new or modified IE or IE group is implemented for one EP from a standard version, then other new or modified IEs or IE groups specified for that EP in that standard version shall be considered comprehended by the receiving entity (some may still remain unsupported).

2. EP: The comprehension of different EPs within a standard version or between different standard versions is not mandated. Any EP that is not supported may be considered not comprehended, even if another EP from that standard version is comprehended, and action based on criticality shall be applied.

10.3.3 Presence Information

For many IEs/IE groups which are optional according to the ASN.1 transfer syntax, NBAP specifies separately if the presence of these IEs/IE groups is optional or mandatory with respect to RNS application by means of the presence field of the concerned object of class NBAP-PROTOCOL-IES, NBAP-PROTOCOL-IES-PAIR, NBAP-PROTOCOL-EXTENSION or NBAP-PRIVATE-IES.

The presence field of the indicated classes supports three values:

1. Optional;
2. Conditional;
3. Mandatory.

If an IE/IE group is not included in a received message and the presence of the IE/IE group is mandatory or the presence is conditional and the condition is true according to the version of the specification used by the receiver, an abstract syntax error occurs due to a missing IE/IE group.

If an IE/IE group is included in a received message and the presence of the IE/IE group is conditional and the condition is false according to the version of the specification used by the receiver, an abstract syntax error occurs due to this erroneously present conditional IE/IE group.

10.3.4 Not comprehended IE/IE group

10.3.4.1 Procedure ID

The receiving node shall treat the different types of received criticality information of the *Procedure ID* according to the following:

Reject IE:

- If a message is received with a *Procedure ID* marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall reject the procedure using the Error Indication procedure.

Ignore IE and Notify Sender:

- If a message is received with a *Procedure ID* marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the procedure and initiate the Error Indication procedure.

Ignore IE:

- If a message is received with a *Procedure ID* marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the procedure.

When using the Error Indication procedure to reject a procedure or to report an ignored procedure it shall include the *Procedure ID* IE, the *Triggering Message* IE, and the *Procedure Criticality* IE in the *Criticality Diagnostics* IE.

10.3.4.1A Type of Message

When the receiving node cannot decode the *Type of Message* IE, the Error Indication procedure shall be initiated with an appropriate cause value.

10.3.4.2 IEs Other Than the Procedure ID and Type of Message

The receiving node shall treat the different types of received criticality information of an IE/IE group other than the *Procedure ID* IE and *Type of Message* IE according to the following:

Reject IE:

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the rejection of one or more IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall terminate the procedure and initiate the Error Indication procedure.

- If a *response* message is received containing one or more IEs/IE groups marked with "*Reject IE*" that the receiving node does not comprehend, the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

Ignore IE and Notify Sender:

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups and report in the response message of the procedure that one or more IEs/IE groups have been ignored. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a message *initiating* a procedure that does not have a message to report the outcome of the procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups, and initiate the Error Indication procedure to report that one or more IEs/IE groups have been ignored.

- If a *response* message is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups and initiate the Error Indication procedure.

Ignore IE:

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.

- If a *response* message is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.

When reporting not comprehended IEs/IE groups marked with "*Reject IE*" or "*Ignore IE and Notify Sender*" using a response message defined for the procedure, the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

When reporting not comprehended IEs/IE groups marked with "*Reject IE*" or "*Ignore IE and Notify Sender*" using the Error Indication procedure, the *Procedure ID* IE, the *Triggering Message* IE, *Procedure Criticality* IE, the *Transaction ID* IE, and the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be

included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

10.3.5 Missing IE or IE Group

The receiving node shall treat the missing IE/IE group according to the criticality information for the missing IE/IE group in the received message specified in the version of this specification used by the receiver:

Reject IE:

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Reject IE*"; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the missing IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a received message *initiating* a procedure that does not have a message to report unsuccessful outcome is missing one or more IEs/IE groups with specified criticality "*Reject IE*", the receiving node shall terminate the procedure and initiate the Error Indication procedure.

- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Reject IE*", the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

Ignore IE and Notify Sender:

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and report in the response message of the procedure that one or more IEs/IE groups were missing. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a received message *initiating* a procedure that does not have a message to report the outcome of the procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.

- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.

Ignore IE:

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message.

- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs/IE groups are missing and continue with the procedure based on the other IEs/IE groups present in the message.

When reporting missing IEs/IE groups with specified criticality "*Reject IE*" or "*Ignore IE and Notify Sender*" using a response message defined for the procedure, the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

When reporting missing IEs/IE groups with specified criticality "*Reject IE*" or "*Ignore IE and Notify Sender*" using the Error Indication procedure, the *Procedure ID* IE, the *Triggering Message* IE, *Procedure Criticality* IE, the *Transaction ID* IE, and the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be

included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

10.3.6 IEs or IE Groups Received in Wrong Order or With Too Many Occurrences or Erroneously Present

If a message with IEs or IE groups in wrong order or with too many occurrences is received or if IEs or IE groups with a conditional presence are present when the condition is not met (i.e. erroneously present), the receiving node shall behave according to the following:

- If a message *initiating* a procedure is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the cause value "Abstract Syntax Error (Falsely Constructed Message)" using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.

- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, the receiving node shall terminate the procedure and initiate the Error Indication procedure, and use cause value "Abstract Syntax Error (Falsely Constructed Message)".

- If a *response* message is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

When determining the correct order only the IEs specified in the specification version used by the receiver shall be considered.

10.4 Logical Error

Logical error situations occur when a message is comprehended correctly, but the information contained within the message is not valid (i.e. semantic error), or describes a procedure which is not compatible with the state of the receiver. In these conditions, the following behaviour shall be performed (unless otherwise specified) as defined by the class of the elementary procedure, irrespective of the criticality of the IEs/IE groups containing the erroneous values.

Class 1:

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a message to report this unsuccessful outcome, this message shall be sent with an appropriate cause value.

Typical cause values are:

- Protocol Causes:

 1. Semantic Error

 2. Message not compatible with receiver state

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a message to report this unsuccessful outcome, the procedure shall be terminated and the ERROR INDICATION procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

Where the logical error exists in a response message of a class 1 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the ERROR INDICATION procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering*

Message IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

10.5 Exceptions

The error handling for all the cases described hereafter shall take precedence over any other error handling described in the other subclause of clause 10.

- If any type of error (Transfer Syntax Error, Abstract Syntax Error or Logical Error) is detected in the ERROR INDICATION message, it shall not trigger the Error Indication procedure in the receiving Node but local error handling.

- In case a response message or ERROR INDICATION message needs to be returned, but the information necessary to determine the receiver of that message is missing, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

- If an error that terminates a procedure occurs, the returned cause value shall reflect the error that caused the termination of the procedure even if one or more abstract syntax errors with criticality 'ignore and notify' have earlier occurred within the same procedure.

Annex A (normative): Allocation and Pre-emption of Radio Links in the Node B

A.1 Deriving Allocation Information for a Radio Link

A.1.1 Establishment of a New Radio Link

The Allocation Information for a Radio Link in the case of establishment of a new Radio Link shall be derived as follows:

- The latest received *Allocation/Retention Priority* IE for each transport channel shall be used.

Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in
a) the procedure that establishes the first Radio Link for the Node B Communication Context in the Node B or
b) a procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels that are intended to use the Radio Link is set to "no priority", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels that are intended to use the Radio Link is not set to "no priority", the allocation priority and the pre-emption capability of the Radio Link shall be set according to the following:

 - The transport channels that have the *Priority Level* IE in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link.

 - The allocation priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all non excluded transport channels that are intended to use the Radio Link.

 - If all non-excluded transport channels that are intended to use a Radio Link to be established have the pre-emption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".
 If one or more non-excluded transport channels that are intended to use the Radio Link to be established have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

A.1.2 Modification of an Existing Radio Link

The Allocation Information for a Radio Link in the case of modification of a Radio Link (addition or modification of transport channels using the Radio Link) shall be derived as follows:

- The latest received *Allocation/Retention Priority* IE for each transport channel shall be used.

Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in
a) the procedure that establishes the first Radio Link for the Node B Communication Context in the Node B,
b) a previous procedure adding or modifying the transport channel, or
c) the current procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels to be added or modified in the Radio Link is set to "no priority", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels to be added or modified in the Radio Link is not set to "no priority", the allocation priority of and the pre-emption capability of the Radio Link to be modified shall be set according to the following:

 - The transport channels to be added or modified that have the *Priority Level* IE in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link to be modified.

 - The allocation priority for a Radio Link to be modified shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all the non-excluded transport channels that are to be added or modified.

 - If all non-excluded transport channels that are to be added or modified in the Radio Link have the pre-emption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".
 If one or more of the non-excluded transport channels to be added or modified in the Radio Link have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

A.2 Deriving Retention Information for a Radio Link

The Retention Information for an existing Radio Link shall be derived as follows:

- The latest received *Allocation/Retention Priority* IE for each transport channel shall be used.

Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in
a) the procedure that establishes the first Radio Link for the Node B Communication Context in the Node B or
b) a procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more transport channels using the Radio Link is set to "no priority", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all the transport channels using the Radio Link is not set to "no priority", the retention priority of the Radio Link and the pre-emption vulnerability of the Radio Link shall be set according to the following:

 - The retention priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all transport channels that uses the Radio Link.

 - If all transport channels that uses the Radio Link have the pre-emption vulnerability, given by the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE, set to "pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "pre-emptable".
 If one or more transport channels that uses the Radio Link have the value of the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE set to "not pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".

The derived retention priority and pre-emption vulnerability are valid until they are changed, or until the Radio Link is deleted. When new transport channels are added to or deleted from the Radio Link or when existing transport channels are modified with regards to the *Allocation/Retention Priority* IE, the retention information shall be derived again according to above.

A.3 The Allocation/Retention Process

The Node B shall establish or modify the resources for a Radio Link according to:

- The value of the Allocation Information (allocation priority and pre-emption capability) of the Radio Link to be established or modified. The Allocation Information is derived according to clause A.1.
- The value of the Retention Information (retention priority and pre-emption vulnerability) of existing Radio Links. The Retention Information derived according to clause A.2.
- The resource situation in the cell.

Whilst the process and the extent of the pre-emption functionality is operator dependent, the pre-emption indicators (pre-emption capability and pre-emption vulnerability) shall be treated as follows:

-. If the pre-emption capability for a Radio Link to be established or modified is set to "may trigger pre-emption" and the resource situation so requires, the Node B may trigger the pre-emption process in clause A.4 to free resources for this allocation request.

-. If the pre-emption capability for a Radio Link to be established or modified is set to "shall not trigger pre-emption", then this allocation request shall not trigger the pre-emption process in clause A.4.

-. If the pre-emption vulnerability for an existing Radio Link is set to "pre-emptable", then this Radio Link shall be included in the pre-emption process in clause A.4.

-. If the pre-emption vulnerability for an existing Radio Link is set to "not pre-emptable", then this Radio Link shall not be included in the pre-emption process in clause A.4.

A.4 The Pre-emption Process

The pre-emption process shall only pre-empt Radio Links with lower retention priority than the allocation priority of the Radio Link to be established or modified. The Radio Links to be pre-empted shall be selected in ascending order of the retention priority.

When the pre-emption process detects that one or more Radio Links have to be pre-empted to free resources for a Radio Link(s) to be established or modified, the Node B shall initiate the Radio Link Pre-emption procedure for all the Node B Communication Contexts having Radio Links selected for pre-emption and start the $T_{Preempt}$ timer.

When enough resources are freed to establish or modify the Radio Link(s) according to the request, the Node B shall stop the $T_{Preempt}$ timer and complete the procedure that triggered the pre-emption process in accordance with the "Successful Operation" subclause of the procedure.

If the $T_{Preempt}$ timer expires, the Node B shall regard the procedure that triggered the pre-emption process as failed and complete the procedure in accordance with the "Unsuccessful Operation" subclause of the procedure.

Annex B (informative): Measurement Reporting

When the *Report Characteristics* IE is set to "Event A" (figure B.1), the Measurement Reporting procedure is initiated when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

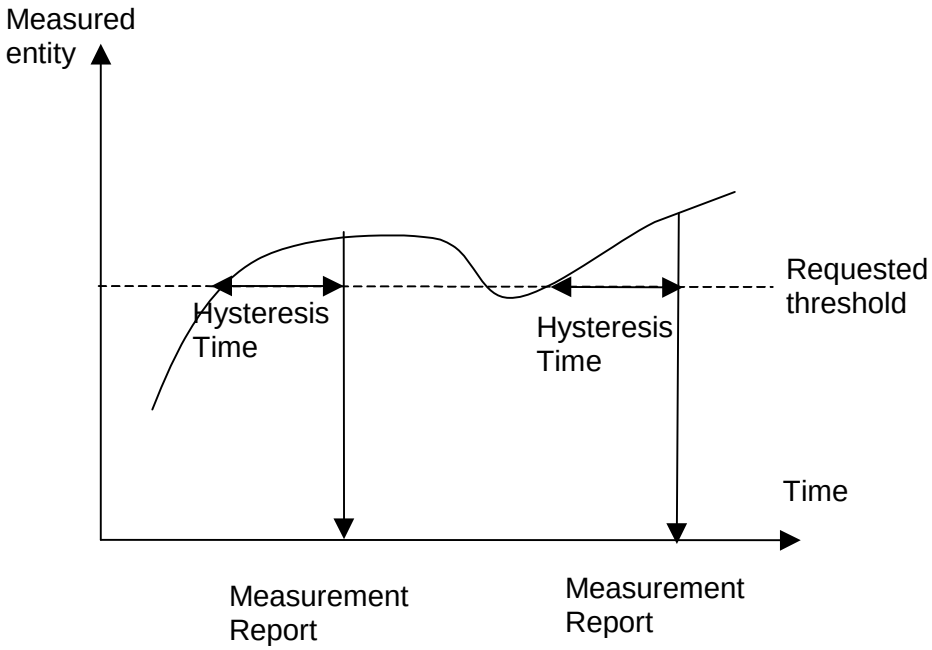


Figure B.1: Event A reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to "Event B" (figure B.2), the Measurement Reporting procedure is initiated when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

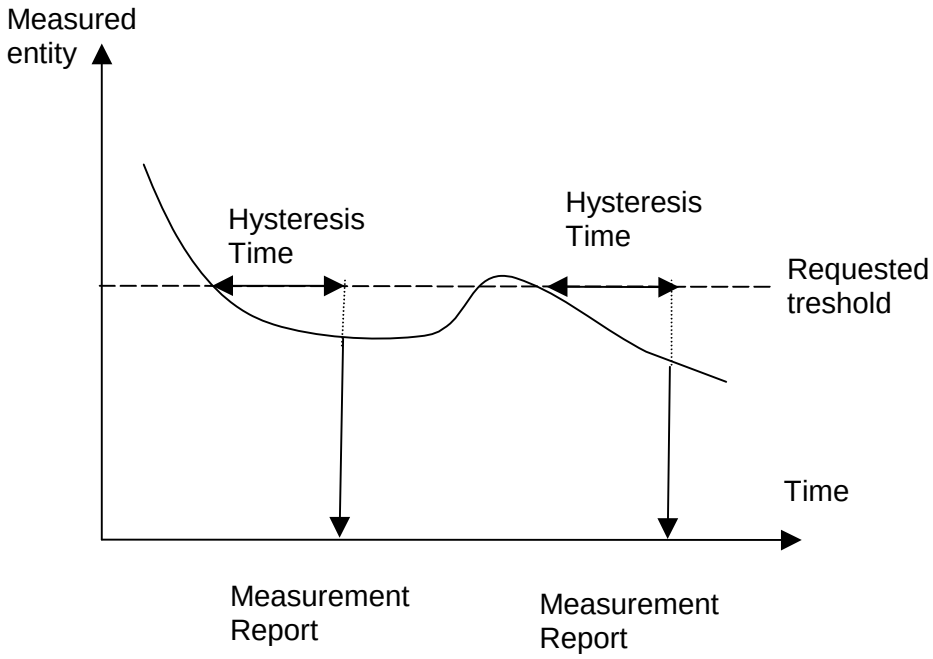


Figure B.2: Event B reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to "Event C" (figure B.3), the Measurement Reporting procedure is initiated always when the measured entity rises by an amount greater than the requested threshold within the requested time. The reporting in figure B.3 is initiated if the Rising Time T1 is less than the requested time.

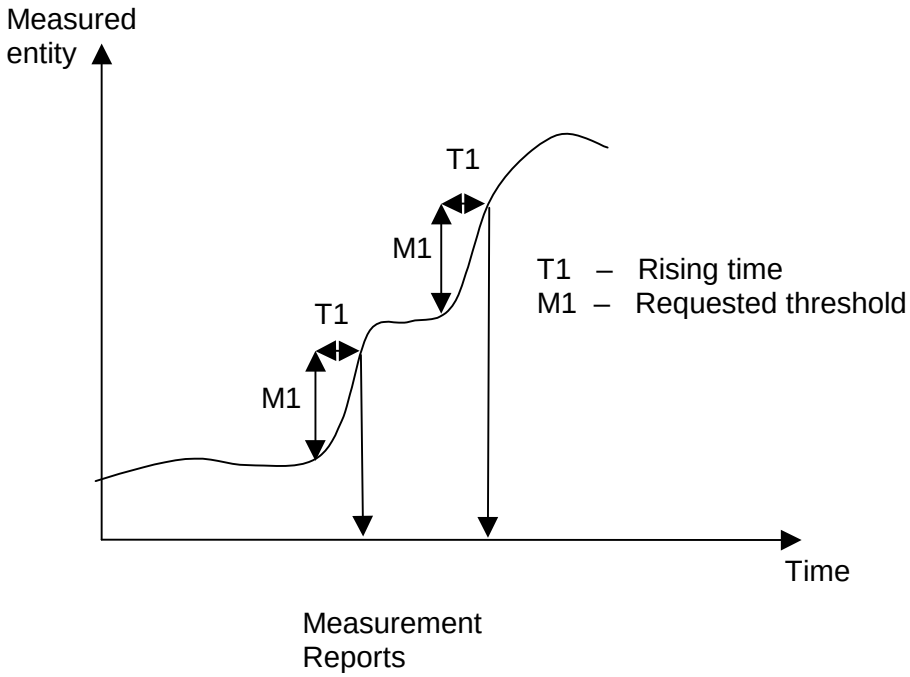


Figure B.3: Event C reporting

When the *Report Characteristics* IE is set to "Event D" (figure B.4), the Measurement Reporting procedure is initiated always when the measured entity falls by an amount greater than the requested threshold within the requested time. The reporting in figure B.4 is initiated if the Falling Time T1 is less than the requested time.

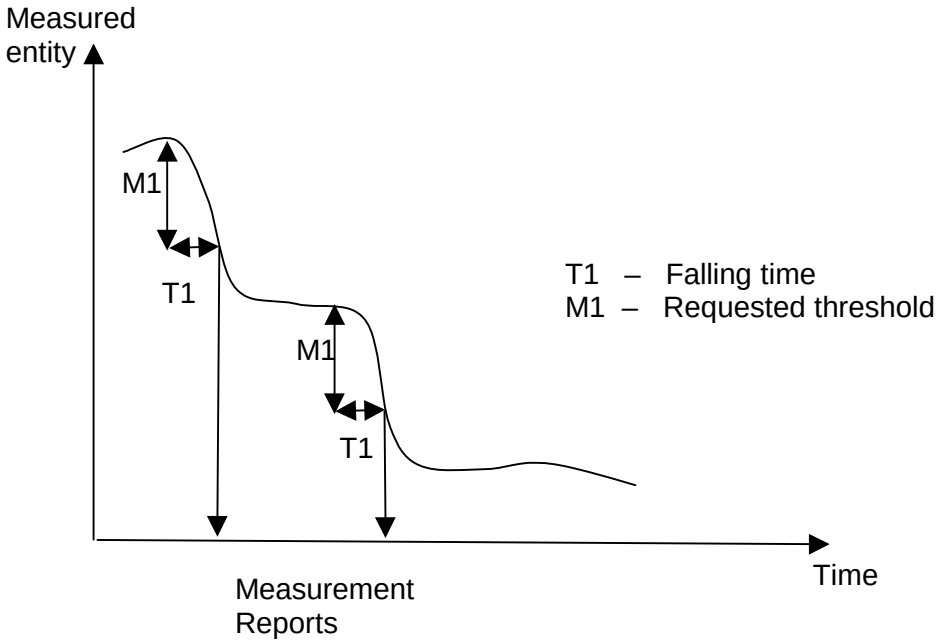


Figure B.4: Event D reporting

When the *Report Characteristics* IE is set to "Event E" (figure B.5), the Measurement Reporting procedure (Report A) is initiated always when the measured entity rises above the "Measurement Threshold 1" and stays there for the "Measurement Hysteresis Time" (T1 in figure B.5). If *Report Periodicity* IE is provided Node B shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity falls below the "Measurement Threshold 1" and is terminated by the Report B.

When the Report A conditions have been met and the measured entity falls below the "Measurement Threshold 2" and stays there for the "Measurement Hysteresis Time" (T1) Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.

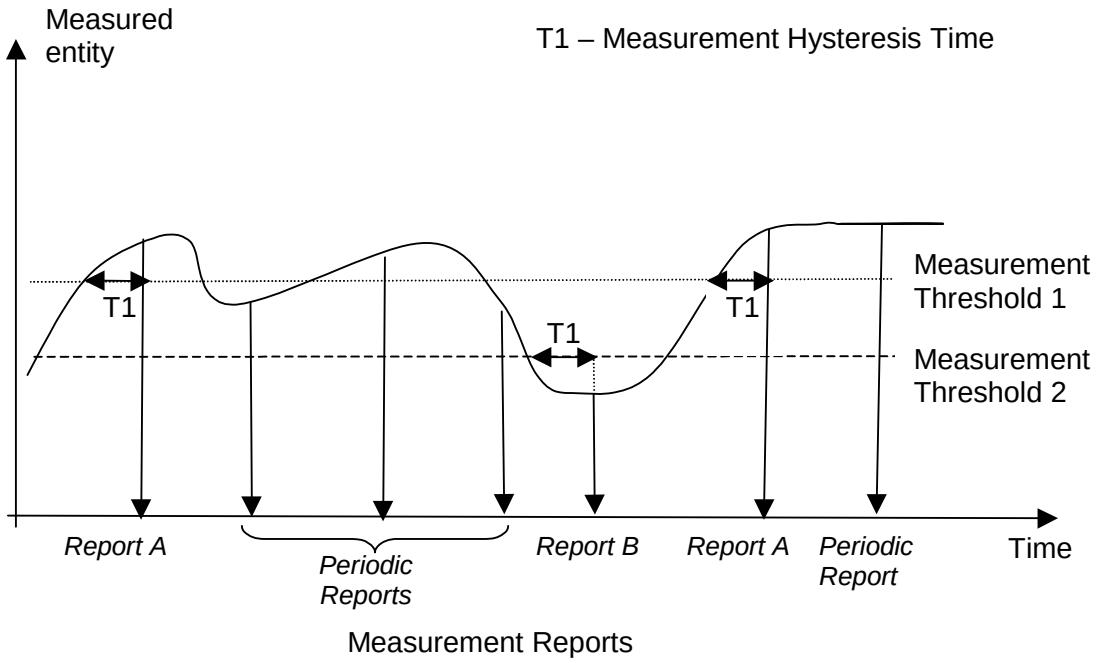


Figure B.5: Event E reporting with Hysteresis Time specified and Periodic Reporting requested

When the *Report Characteristics* IE is set to "Event F" (figure B.6), the Measurement Reporting procedure (Report A) is initiated always when the measured entity falls below the "Measurement Threshold 1" and stays there for the "Measurement Hysteresis Time" (T1 in figure B.6). If *Report Periodicity* IE is provided Node B shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity rises above the "Measurement Threshold 1" and is terminated by the Report B.

When the Report A conditions have been met and the measured entity rises above the "Measurement Threshold 2" and stays there for the "Measurement Hysteresis Time" (T1) Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.

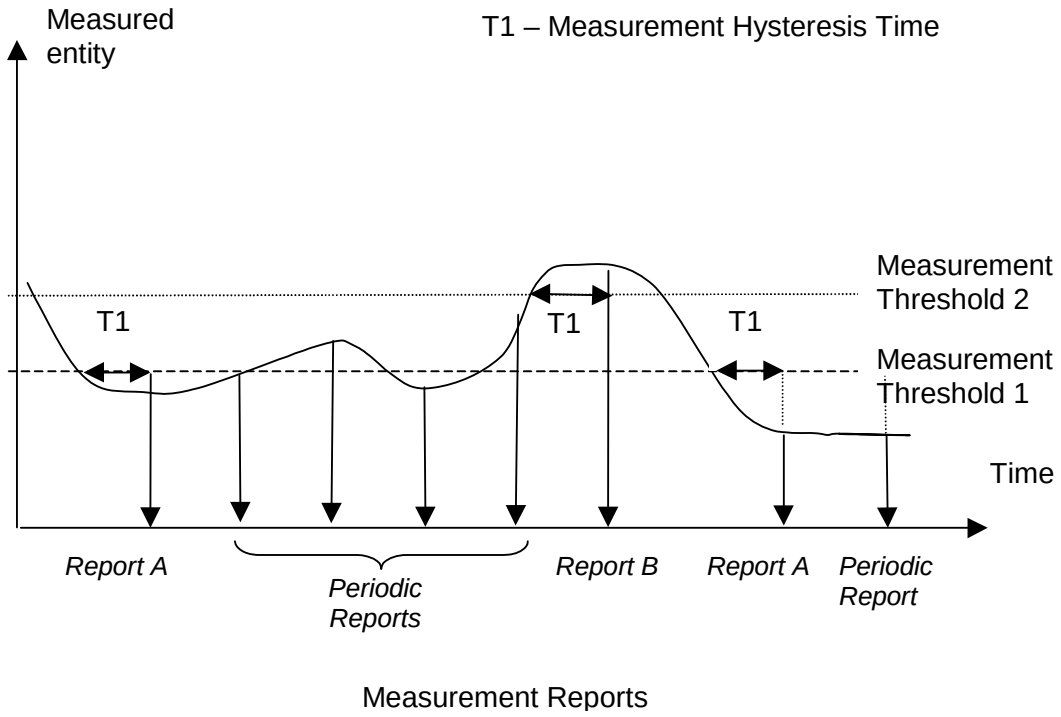


Figure B.6: Event F reporting with Hysteresis Time specified and Periodic Reporting requested

Annex C (informative): Guidelines for Usage of the Criticality Diagnostics IE

C.1 EXAMPLE MESSAGE Layout

Assume the following message format:

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
A	M				YES	reject
B	M				YES	reject
>E		*1..<maxE>*			EACH	ignore
>>F		*1..<maxF>*			–	
>>>G		*0..3, …*			EACH	ignore
>>H		*1..<maxH>*			EACH	ignore
>>>G		*0..3, …*			EACH	ignore and notify
>>G	M				YES	reject
>>J		*1..<maxJ>*			–	
>>>G		*0..3, …*			EACH	reject
C	M				YES	reject
>K		*1..<maxK>*			EACH	ignore and notify
>>L		*1..<maxL>*			–	
>>>M	O				–	
D	M				YES	reject

Note 1. The IEs F, J, and L do not have assigned criticality. The IEs F, J, and L are consequently realised as the ASN.1 type SEQUENCE OF of "ordinary" ASN.1 type, e.g. INTEGER. On the other hand, the repeatable IEs with assigned criticality are realised as the ASN.1 type SEQUENCE OF of an IE object, e.g. ProtocolIE-Single-Container.

For the corresponding ASN.1 layout, see subclause C.4.

C.2 Example on a Received EXAMPLE MESSAGE

Assume further more that a received message based on the above tabular format is according to the figure below.

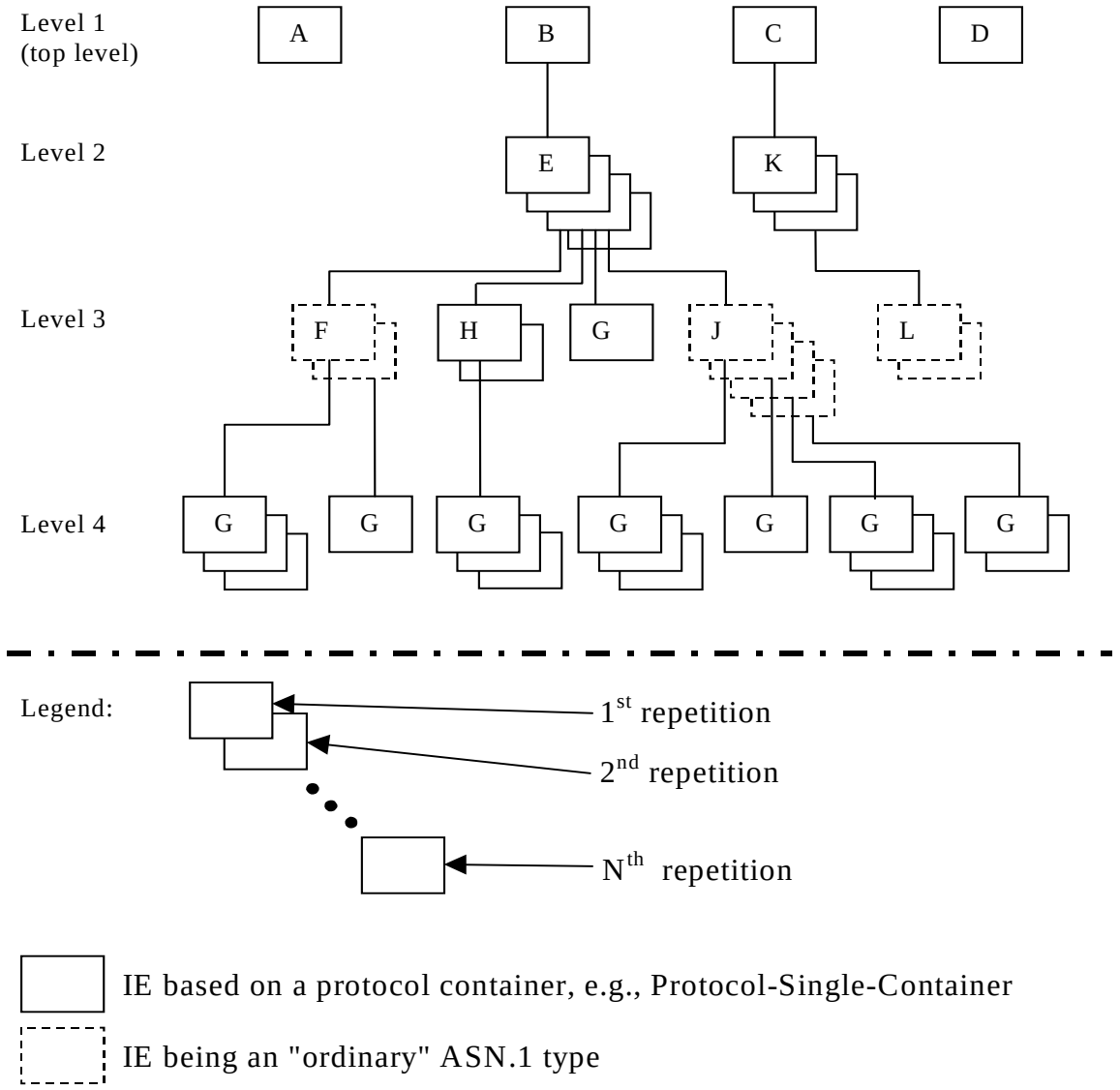


Figure C.1: Example of content of a received NBAP message based on the EXAMPLE MESSAGE

C.3 Content of Criticality Diagnostics

C.3.1 Example 1

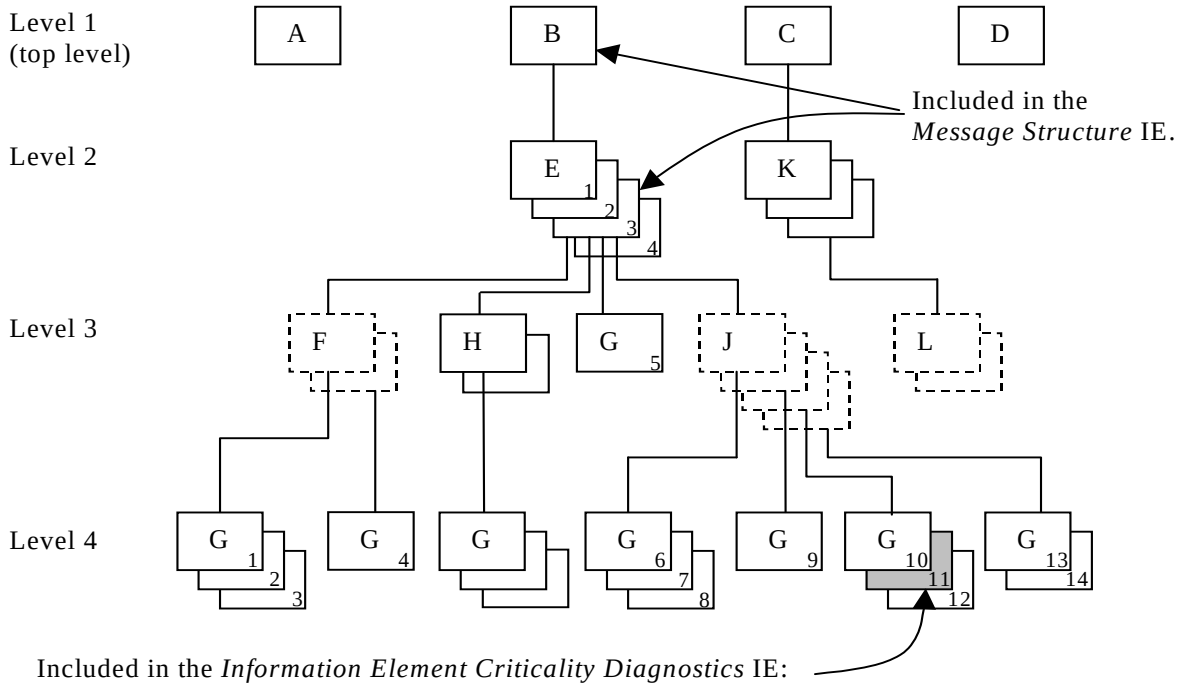


Figure C.2: Example of a received NBAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE J shown in the figure C.2 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 4.
IE ID	id-G	IE ID from the reported level, i.e. level 4.
Repetition Number	11	Repetition number on the reported level, i.e. level 4. (Since the IE E (level 2) is the lowest level included in the *Message Structure* IE this is the eleventh occurrence of IE G within the IE E (level 2).
Type of Error	not understood	
Message Structure, *first repetition*		
>IE ID	id-B	IE ID from level 1.
Message Structure, *second repetition*		
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.
>Repetition Number	3	Repetition number from the lowest level above the reported level, i.e. level 2.

Note 2. The IE J on level 3 cannot be included in the *Message Structure* IE since they have no criticality of their own.

Note 3. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.3.2 Example 2

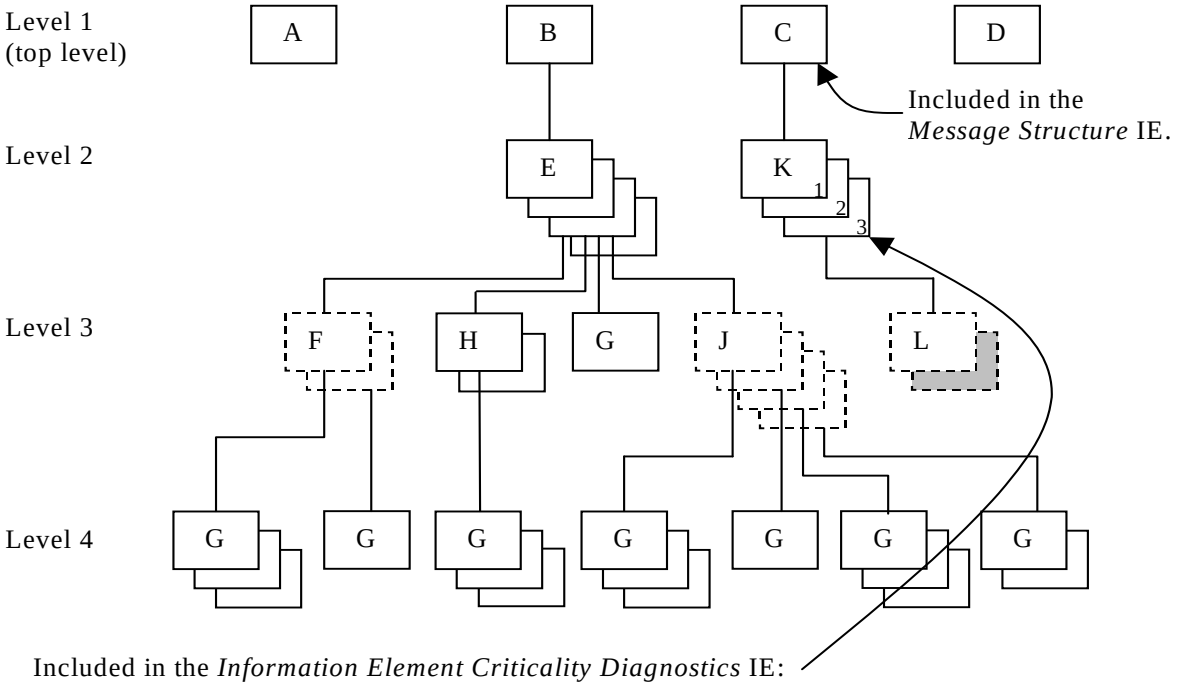


Figure C.3: Example of a received NBAP message containing a not comprehended IE

If there is an error within the second instance (marked as grey) in the sequence (IE L in the tabular format) on level 3 below IE K in the structure shown in the figure C.3 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	ignore and notify	Criticality for IE on the reported level, i.e. level 2.
IE ID	id-K	IE ID from the reported level, i.e. level 2.
Repetition Number	3	Repetition number on the reported level, i.e. level 2.
Type of Error	not understood	
Message Structure, *first repetition*		
>IE ID	id-C	IE ID from the lowest level above the reported level, i.e. level 1.

Note 4. The IE L on level 3 cannot be reported individually included in the *Message Structure* IE since it has no criticality of its own.

C.3.3 Example 3

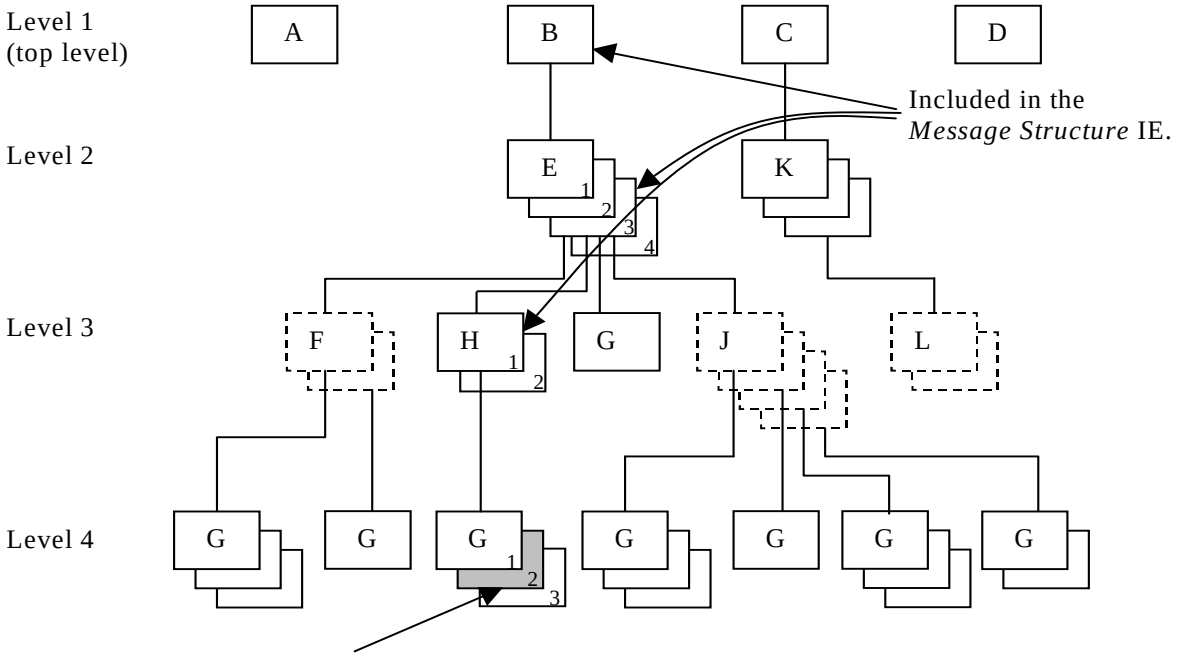


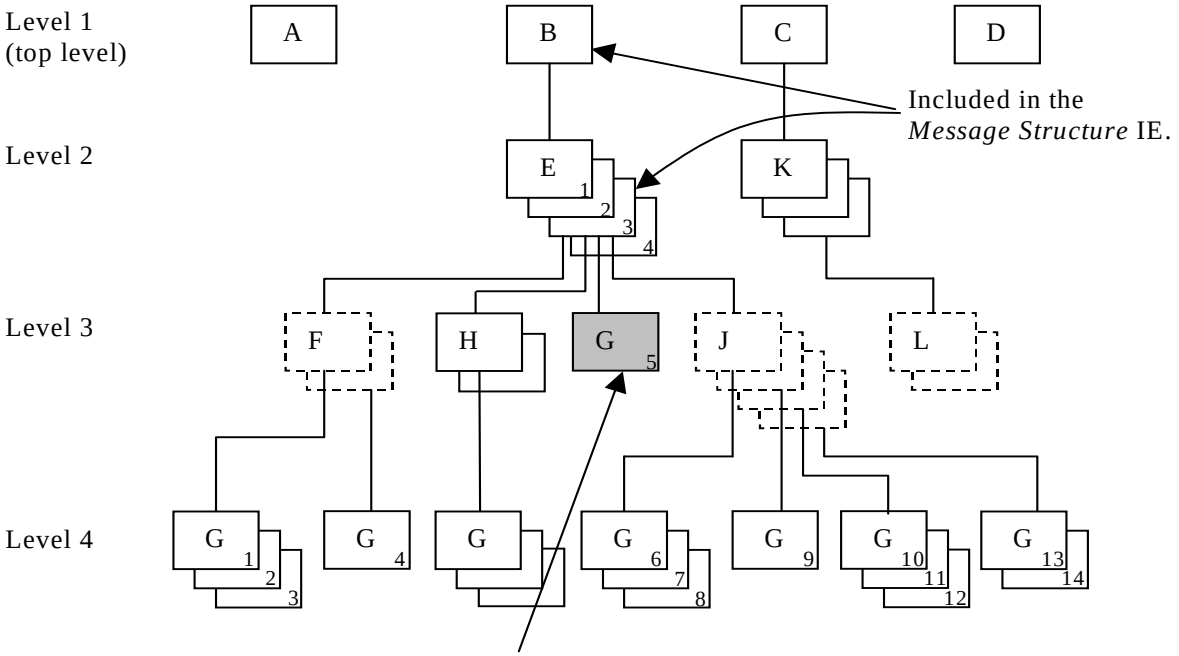
Figure C.4: Example of a received NBAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE H shown in the figure C.4 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	ignore and notify	Criticality for IE on the reported level, i.e. level 4.
IE ID	id-G	IE ID from the reported level, i.e. level 4.
Repetition Number	2	Repetition number on the reported level, i.e. level 4.
Type of Error	not understood	
Message Structure, *first repetition*		
>IE ID	id-B	IE ID from level 1.
Message Structure, *second repetition*		
>IE ID	id-E	IE ID from level 2.
>Repetition Number	3	Repetition number from level 2.
Message Structure, *third repetition*		
>IE ID	id-H	IE ID from the lowest level above the reported level, i.e. level 3.
>Repetition Number	1	Repetition number from the lowest level above the reported level, i.e. level 3.

Note 5. The repetition number of level 4 indicates the number of repetitions of IE G received up to the detected erroneous repetition, counted below the same instance of the previous level with assigned criticality (instance 1 of IE H on level 3).

C.3.4 Example 4



Included in the *Information Element Criticality Diagnostics* IE:
a) *IE ID* IE
b) *Repetition Number* IE

Figure C.5: Example of a received NBAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE E shown in the figure C.5 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 3.
IE ID	id-G	IE ID from the reported level, i.e. level 3.
Repetition Number	5	Repetition number on the reported level, i.e. level 3. (Since the IE E (level 2) is the lowest level included in the *Message Structure* IE this is the fifth occurrence of IE G within the IE E (level 2).
Type of Error	not understood	
Message Structure, *first repetition*		
>IE ID	id-B	IE ID from level 1.
Message Structure, *second repetition*		
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.
>Repetition Number	3	Repetition number from the lowest level above the reported level, i.e. level 2.

Note 6. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.3.5 Example 5

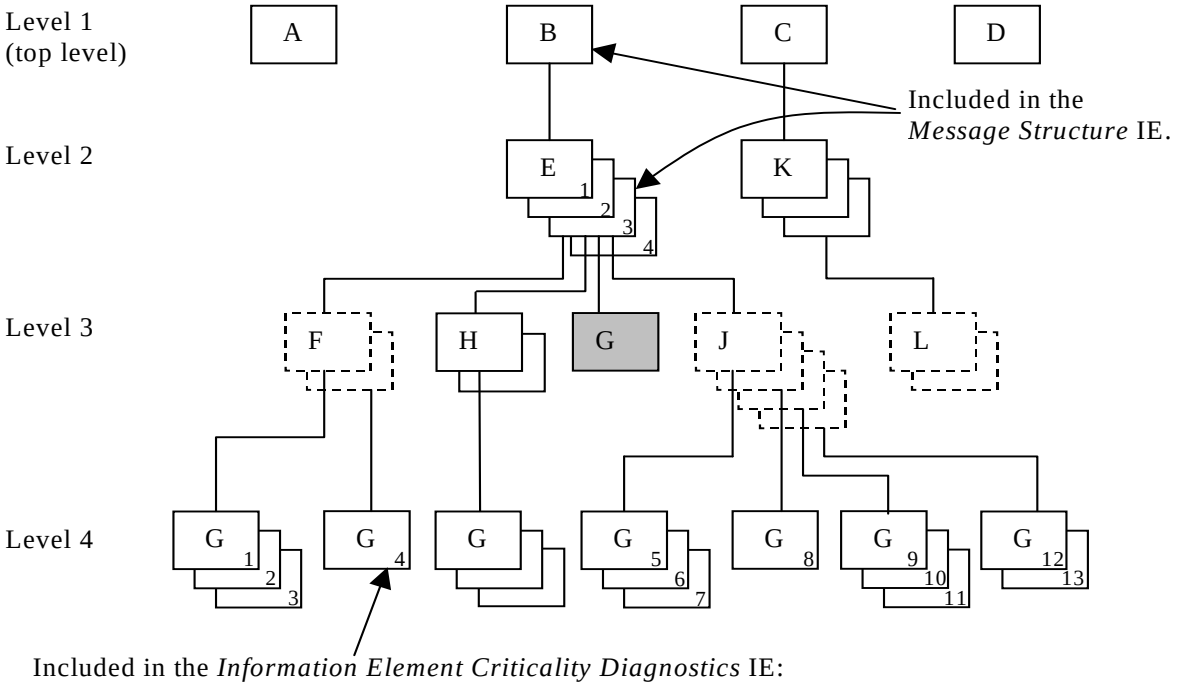


Figure C.6: Example of a received NBAP message with a missing IE

If the instance marked as grey in the IE G in the IE E shown in the figure C.6 above, is missing this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 3.
IE ID	id-G	IE ID from the reported level, i.e. level 3.
Repetition Number	4	Repetition number up to the missing IE on the reported level, i.e. level 3. (Since the IE E (level 2) is the lowest level included in the *Message Structure* IE there have been four occurrences of IE G within the IE E (level 2) up to the missing occurrence.
Type of Error	missing	
Message Structure, *first repetition*		
>IE ID	id-B	IE ID from level 1.
Message Structure, *second repetition*		
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.
>Repetition Number	3	Repetition number from the lowest level above the reported level, i.e. level 2.

Note 7. The repetition number of the reported IE indicates the number of repetitions of IE G received up to but not including the missing occurrence, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.4 ASN.1 of EXAMPLE MESSAGE

```
ExampleMessage ::= SEQUENCE {
    ProtocolIEs         ProtocolIE-Container        {{ExampleMessage-IEs}},
    ProtocolExtensions  ProtocolExtensionContainer  {{ExampleMessage-Extensions}}   OPTIONAL,
    ...
}

ExampleMessage-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-A   CRITICALITY reject  TYPE A  PRESENCE mandatory} |
    { ID id-B   CRITICALITY reject  TYPE B  PRESENCE mandatory} |
    { ID id-C   CRITICALITY reject  TYPE C  PRESENCE mandatory} |
    { ID id-D   CRITICALITY reject  TYPE D  PRESENCE mandatory} ,
    ...
}

B ::= SEQUENCE {
    e               E-List,
    iE-Extensions   ProtocolExtensionContainer { {B-ExtIEs} }   OPTIONAL,
    ...
}

B-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-List ::= SEQUENCE (SIZE (1..maxE)) OF ProtocolIE-Single-Container { {E-IEs} }

E-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-E   CRITICALITY ignore  TYPE E  PRESENCE mandatory  }
}

E ::= SEQUENCE {
    f               F-List,
    h               H-List,
    g               G-List1,
    j               J-List,
    iE-Extensions   ProtocolExtensionContainer { {E-ExtIEs} }   OPTIONAL,
    ...
}

E-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

F-List ::= SEQUENCE (SIZE (1..maxF)) OF F

F ::= SEQUENCE {
    g               G-List2 OPTIONAL,
    iE-Extensions   ProtocolExtensionContainer { {F-ExtIEs} }   OPTIONAL,
    ...
}

F-ExtIEs    NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

G-List2 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { {G2-IEs} }

G2-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-G   CRITICALITY ignore  TYPE G  PRESENCE mandatory  }
}

H-List ::= SEQUENCE (SIZE (1..maxH)) OF ProtocolIE-Single-Container { {H-IEs} }

H-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-H   CRITICALITY ignore  TYPE H  PRESENCE mandatory  }
}

H ::= SEQUENCE {
    g               G-List3 OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {H-ExtIEs} } OPTIONAL,
    ...
}

H-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

G-List3 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { {G3-IEs} }

G3-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-G   CRITICALITY notify  TYPE G  PRESENCE mandatory  }
}

G-List1 ::= ProtocolIE-Single-Container { {G1-IEs} }

G1-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-G   CRITICALITY reject  TYPE G  PRESENCE mandatory  }
}

J-List ::= SEQUENCE (SIZE (1..maxJ)) OF J

J ::= SEQUENCE {
    g               G-List4 OPTIONAL,
    iE-Extensions   ProtocolExtensionContainer { {J-ExtIEs} }   OPTIONAL,
    ...
}

J-ExtIEs    NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

G-List4 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { {G4-IEs} }

G4-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-G   CRITICALITY reject  TYPE G  PRESENCE mandatory  }
}

C ::= SEQUENCE {
    k               K-List,
    iE-Extensions   ProtocolExtensionContainer { {C-ExtIEs} }   OPTIONAL,
    ...
}

C-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

K-List ::= SEQUENCE (SIZE (1..maxK)) OF ProtocolIE-Single-Container { {K-IEs} }

K-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-K   CRITICALITY notify  TYPE K  PRESENCE mandatory  }
}

K ::= SEQUENCE {
    l               L-List,
    iE-Extensions   ProtocolExtensionContainer { {K-ExtIEs} }   OPTIONAL,
    ...
}

K-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

L-List ::= SEQUENCE (SIZE (1..maxL)) OF L

L ::= SEQUENCE {
    m               M   OPTIONAL,
    iE-Extensions   ProtocolExtensionContainer { {L-ExtIEs} }   OPTIONAL,
    ...
}

L-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ExampleMessage-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

Annex D (normative): IB_SG_DATA Encoding

D.1 Overall Description

There exist two variants for encoding *IB_SG_DATA* IE (see section 9.2.1.32), which are detailed in subsections below. To avoid incorrect transmission of System Information on Uu, the following behaviour is required:

- For each Iub, CRNC shall use the encoding variant supported by the Node B for the *IB_SG_DATA* IE (see section 9.2.1.32) when sending the SYSTEM INFORMATION UPDATE REQUEST message to the Node B. This is supported by configuration in the CRNC.

D.2 IB_SG_DATA Encoding Variant 1

This variant corresponds to the algorithm, that ASN.1 length encoding for the conveyed SIB segment is performed by the RNC. Building of IB_SG_DATA segments involves two steps:

1) Segmentation of MIB/SIB/SB and

2) RRC encoding of the segments, which includes the PER encoding of the length in case of "SIB data variable".

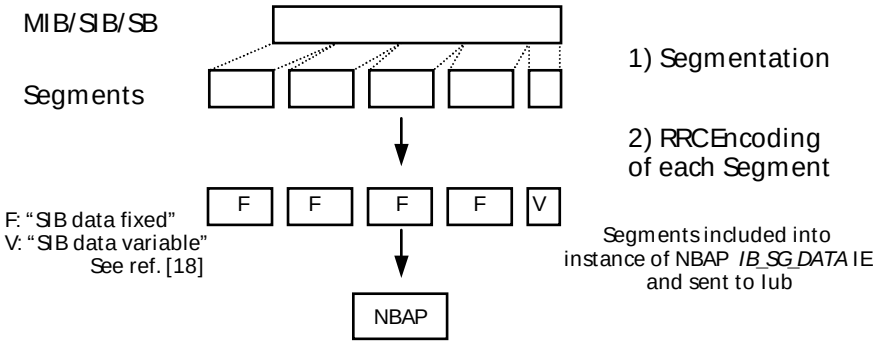


Figure D.1: The Building of Segments

D.3 IB_SG_DATA Encoding Variant 2

This variant corresponds to the algorithm, that ASN.1 length encoding for the conveyed segment is not performed by the RNC. Segments are built in the CRNC by segmentation of a MIB/SIB/SB.

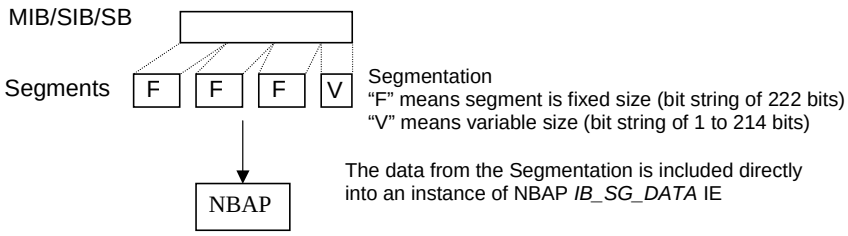


Figure D.2: The Building of Segments

Annex E (informative): Reporting the status of resources used for frequency (1.28 Mcps TDD only)

For a multi-frequency cell, the Local Cell represents the resources in the Node B that can be used for the configuration of a number of frequencies in the cell. The resources for a frequency in Node B are defined as FPM (Frequency Process Module) and is identified by FPM ID.

In the Cell Setup procedure, RNC should configure FPM for each frequency by including *FPM ID* IE in the CELL SETUP REQUEST message.

In the Cell Reconfiguration procedure, RNC should configure FPM for each added frequency by including *FPM ID* IE in the CELL RECONFIGURATION REQUEST message.

In Audit procedure, the Node B should include the *FPM* ID IE and the *Local Cell ID* IE in the *Local Cell Information* IE to report the status of a FPM in the AUDIT RESPONSE message.

In Resource Status Indication procedure, the Node B should include the *FPM ID* IE and the *Local Cell ID* IE in the *Local Cell Information* IE to report the status of a FPM in the RESOURCE STATUS INDICATION message.

Annex F (informative): Change history

Change history					
TSG RAN#	Version	CR	Tdoc RAN	New Version	Subject/Comment
RAN_06	-	-	RP-99764	3.0.0	Approved at TSG RAN #6 and placed under Change Control
RAN_07	3.0.0	-	-	3.1.0	Approved at TSG RAN #7
RAN_08	3.1.0	-	RP-000250	3.2.0	Approved at TSG RAN #8
RAN_08	3.1.0	-	RP-000251	3.2.0	Approved at TSG RAN #8
RAN_08	3.1.0	-	RP-000252	3.2.0	Approved at TSG RAN #8
RAN_08	3.1.0	-	RP-000253	3.2.0	Approved at TSG RAN #8
RAN_09	3.2.0	165 168-170, 173-178, 180-189	RP-000386	3.3.0	Approved at TSG RAN #9
RAN_09	3.2.0	190-200, 203 205 207 208 211 214 218-219	RP-000387	3.3.0	Approved at TSG RAN #9
RAN_09	3.2.0	221 222 224-228 233 244, 246	RP-000388	3.3.0	Approved at TSG RAN #9
RAN_09	3.2.0	247-248	RP-000389	3.3.0	Approved at TSG RAN #9
RAN_10	3.3.0	250-324	RP-000627 RP-000628 RP-000630 RP-000697	3.4.0	Approved at TSG RAN #10
RAN_10	3.4.0			3.4.1	Correct of headers
RAN_11	3.4.1	325-330, 333-336, 339-342, 344, 346-348, 350-356, 365, 367-371, 377-379, 383, 385-386, 388	RP-010125 RP-010126	3.5.0	Approved at TSG RAN #11

Change history							
Date	**TSG #**	**TSG Doc.**	**CR**	**Rev**	**Subject/Comment**	**Old**	**New**
March 01	11	RP-010160	373,387		Approved at TSG RAN #11 and placed under Change Control	-	4.0.0
March 01	11	RP-010166	361		Approved at TSG RAN #11 and placed under Change Control	-	4.0.0
March 01	11	RP-010159	372,374,381		Approved at TSG RAN #11 and placed under Change Control	-	4.0.0
March 01	11	RP-010164	358,359		Approved at TSG RAN #11 and placed under Change Control	-	4.0.0
March 01	11	RP-010167	362		Approved at TSG RAN #11 and placed under Change Control	-	4.0.0
06/2001	12	RP-010383	390,392,394,396,398,400,402,404,406		Approved at TSG RAN #12	4.0.0	4.1.0
06/2001	12	RP-010384	412,416,421,423,427,431,433,437,439,441		Approved at TSG RAN #12	4.0.0	4.1.0
06/2001	12	RP-010385	449,456,462,464,467		Approved at TSG RAN #12	4.0.0	4.1.0
06/2001	12	RP-010396	413,414,415,416,417,418,419,450,451,452,453,454,465		Approved at TSG RAN #12	4.0.0	4.1.0
09/2001	13	RP-010587	410	2	Ambiguity in CM handling	4.1.0	4.2.0
09/2001	13	RP-010587	472		Correction to Information Block Deletion	4.1.0	4.2.0
09/2001	13	RP-010587	476		Clarification of the AICH power	4.1.0	4.2.0
09/2001	13	RP-010587	479	1	Transport bearer replacement clarification	4.1.0	4.2.0
09/2001	13	RP-010587	481	1	Corrections to the PDSCH Code Mapping IE	4.1.0	4.2.0
09/2001	13	RP-010587	484	1	Correction to the handling of DL Code Information in RL Reconfiguration procedures	4.1.0	4.2.0
09/2001	13	RP-010587	485	1	Correction to the Error handling of the ERROR INDICATION message	4.1.0	4.2.0
09/2001	13	RP-010587	486		Correct max Codes discrepancy between tabular and ASN.1	4.1.0	4.2.0
09/2001	13	RP-010587	488		S-CCPCH Corrections for TDD	4.1.0	4.2.0
09/2001	13	RP-010587	491	1	Nbap criticality	4.1.0	4.2.0
09/2001	13	RP-010588	500	1	Clarification of Abnormal Conditions/Unsuccessful Operation	4.1.0	4.2.0
09/2001	13	RP-010588	504		Error handling of erroneously present conditional IEs	4.1.0	4.2.0
09/2001	13	RP-010588	507	1	Correction for maxNrOfCPCHs	4.1.0	4.2.0
09/2001	13	RP-010588	509	1	Correction for N_EOT	4.1.0	4.2.0
09/2001	13	RP-010588	513		Bitstrings ordering	4.1.0	4.2.0
09/2001	13	RP-010588	517		Mapping of TFCS to TFCI	4.1.0	4.2.0
09/2001	13	RP-010588	519		Correction of implementation of RAN#12 CRs	4.1.0	4.2.0
09/2001	13	RP-010588	521		TDD Channelisation code range definition	4.1.0	4.2.0
09/2001	13	RP-010588	524	1	Clarification of chapter 10	4.1.0	4.2.0
09/2001	13	RP-010588	526		Clarification of use of Diversity Control Indicator	4.1.0	4.2.0
09/2001	13	RP-010588	528	3	Clarification of coordinated DCHs	4.1.0	4.2.0
09/2001	13	RP-010599	468	2	Allowed Combinations of Dedicated Measurement Type and the Reporting Characteristics Type	4.1.0	4.2.0
09/2001	13	RP-010599	470		Support of 8PSK modulation for LCR TDD	4.1.0	4.2.0
09/2001	13	RP-010599	473		DPC Mode in Radio Link Addition procedure	4.1.0	4.2.0
09/2001	13	RP-010599	475		Correction on NBAP function	4.1.0	4.2.0
09/2001	13	RP-010599	498	1	Adding protocol container in CHOICE type IE	4.1.0	4.2.0
09/2001	13	RP-010599	501	1	Clarification of Abnormal Conditions/Unsuccessful Operation	4.1.0	4.2.0
09/2001	13	RP-010599	515	1	Corrections to position reporting	4.1.0	4.2.0
09/2001	13	RP-010599	518	2	CR to 25.433 v4.1.0: RX timing deviation as dedicated measurement for 1.28Mcps TDD	4.1.0	4.2.0

09/2001	13	RP-010599	522	1	Clarification on the Time Slot LCR	4.1.0	4.2.0
10/2001	-	-	-	-	Editorial correction to correct the header	4.2.0	4.2.1
12/2001	14	RP-010897	530	2	CR on Priority range	4.2.1	4.3.0
12/2001	14	RP-010862	534		Bitstrings ordering	4.2.1	4.3.0
12/2001	14	RP-010862	536		Added UTRAN modes in the IE Type and Reference and Semantics Description in IEs in NBAP messages	4.2.1	4.3.0
12/2001	14	RP-010862	538		Alignment to RAN4 spec for Transmitted Code Power Measurement	4.2.1	4.3.0
12/2001	14	RP-010862	540		Correction the Clause 10 Error Handling	4.2.1	4.3.0
12/2001	14	RP-010862	542		Clarification of TrCh Ordering in TFCS	4.2.1	4.3.0
12/2001	14	RP-010862	544		Addition of SIB15.4 and SIB18 to tabular	4.2.1	4.3.0
12/2001	14	RP-010862	550		Transmit Diversity for TDD	4.2.1	4.3.0
12/2001	14	RP-010862	552		Clarification for the definition of the ASN.1 constants	4.2.1	4.3.0
12/2001	14	RP-010862	559	1	Terminology Corrections	4.2.1	4.3.0
12/2001	14	RP-010863	560	1	Rel-4 specific terminology corrections	4.2.1	4.3.0
12/2001	14	RP-010863	562		Procedure Code Criticality in Error Indication	4.2.1	4.3.0
12/2001	14	RP-010863	565		Clarification for the Power Adjustment Type IE in the DL POWER CONTROL REQUEST message	4.2.1	4.3.0
12/2001	14	RP-010863	567	1	Forward Compatibility for DL Power Balancing	4.2.1	4.3.0
12/2001	14	RP-010863	569		Reconfiguration clarification	4.2.1	4.3.0
12/2001	14	RP-010863	571	2	Addition of amendment to clarify the PER encoding of bitstrings	4.2.1	4.3.0
12/2001	14	RP-010863	575	2	Transport Bearer replacement clarification for the DSCH case	4.2.1	4.3.0
12/2001	14	RP-010863	577		Clarification of the Transaction ID	4.2.1	4.3.0
12/2001	14	RP-010863	579	1	CPCH-related corrections	4.2.1	4.3.0
12/2001	14	RP-010863	582		Correction of S field length	4.2.1	4.3.0
12/2001	14	RP-010874	546	1	Correction of drift rate resolution	4.2.1	4.3.0
12/2001	14	RP-010874	547		Cell Parameter ID IE definition for 1.28Mcps TDD	4.2.1	4.3.0
12/2001	14	RP-010874	548		Amendment of the RADIO LINK ADDITION RESPONSE TDD message for LCR TDD	4.2.1	4.3.0
12/2001	14	RP-010874	580	2	SFN-SFN quality indication	4.2.1	4.3.0
12/2001	14	RP-010912	545	1	Correction to SFN-SFN Observed Time Difference Measurement report mapping	4.2.1	4.3.0
03/2002	15	RP-020174	591	1	Incorrect Physical Shared Channel TDD Procedure definition in ASN.1	4.3.0	4.4.0
03/2002	15	RP-020174	593		Removal of criticality information for Transaction ID in the ERROR INDICATION message	4.3.0	4.4.0
03/2002	15	RP-020174	600		Clarification to measurement unit at Higher Layer Filtering.	4.3.0	4.4.0
03/2002	15	RP-020174	605		Correction of the Limited Power Increase in Synchronised Radio Link Reconfiguration Preparation	4.3.0	4.4.0
03/2002	15	RP-020174	623	1	Correction to physical channels which SCTD can be applied (Iub)	4.3.0	4.4.0
03/2002	15	RP-020182	585	1	Corrections to the Information Exchange Initiation procedure	4.3.0	4.4.0
03/2002	15	RP-020182	586	1	Correction to UE position measurements quality and threshold information	4.3.0	4.4.0
03/2002	15	RP-020182	587	1	Correction to UE position measurements change and deviation limit formulas	4.3.0	4.4.0
03/2002	15	RP-020182	601	1	Modification of the T_utran-gps length	4.3.0	4.4.0
03/2002	15	RP-020182	606		Amendment of the COMMON MEASUREMENT INITIATION REQUEST message	4.3.0	4.4.0
03/2002	15	RP-020182	609	1	ASN.1 and tabular amendments for LCR TDD	4.3.0	4.4.0
03/2002	15	RP-020182	610		Midamble shift LCR in the PHYSICAL SAHRED SCHANNEL RECONFIGURATION REQUEST [TDD] message	4.3.0	4.4.0
03/2002	15	RP-020182	617		NBAP Rapporteur corrections	4.3.0	4.4.0
03/2002	15	RP-020231	628	2	Removing of channel coding option "no coding" for FDD	4.3.0	4.4.0
03/2002	15	RP-020188	425	4	DL Power Capability as a shared resource between Cells	4.4.0	5.0.0
03/2002	15	RP-020188	496	4	Power Balancing Activation with Radio Link Setup and Radio Link Addition procedures in NBAP	4.4.0	5.0.0
03/2002	15	RP-020188	497	3	Power Balancing Restart with Radio Link Reconfiguration procedure in NBAP	4.4.0	5.0.0
03/2002	15	RP-020188	502	2	Initial DL Power After addition of CCTrCH in Synchronized Reconfiguration	4.4.0	5.0.0
03/2002	15	RP-020194	583		NBAP Signalling support for flexible hard split	4.4.0	5.0.0
03/2002	15	RP-020193	584	3	Add IPDL parameters for LCR TDD in CELL SETUP REQUEST and CELL RECONFIGURATION REQUEST in NBAP message.	4.4.0	5.0.0
03/2002	15	RP-020198	588	1	Re-arrangement of Iub Transport Bearers	4.4.0	5.0.0
03/2002	15	RP-020190	589	2	HSDPA NBAP Common Procedure Modifications	4.4.0	5.0.0

03/2002	15	RP-020189	597	2	Introduction of IP Transport option in UTRAN	4.4.0	5.0.0
03/2002	15	RP-020188	598		Introduction separate max PDSCH power limitation	4.4.0	5.0.0
03/2002	15	RP-020199	602	2	Separation of Resource Reservation and Radio Link Activation	4.4.0	5.0.0
03/2002	15	RP-020196	603		Introduction of RL Timing Adjustment support	4.4.0	5.0.0
03/2002	15	RP-020193	607	1	Introduction of the Neighbouring TDD Cell Measurement Information LCR	4.4.0	5.0.0
03/2002	15	RP-020191	608	2	Node B synchronisation for 1.28Mcps TDD	4.4.0	5.0.0
03/2002	15	RP-020190	612	3	HSDPA RL-Level Signalling for TDD & FDD	4.4.0	5.0.0
03/2002	15	RP-020193	613	1	Introduction of Angle of Arrival enhanced UE positioning for 1.28Mcps TDD in NBAP	4.4.0	5.0.0
03/2002	15	RP-020194	626		NBAP changes for TFCI power control in DSCH hard split mode	4.4.0	5.0.0
06/2002	16	RP-020412	595	3	Introduction of Qth signalling in UTRAN	5.0.0	5.1.0
06/2002	16	RP-020412	633		Criticality Information Decoding Failure Handling	5.0.0	5.1.0
06/2002	16	RP-020412	636	1	Alignment of tabular and ASN.1 coding for DL power	5.0.0	5.1.0
06/2002	16	RP-020412	639	1	Correction to RL Restore Indication	5.0.0	5.1.0
06/2002	16	RP-020412	648		Use of PDSCH RL ID for TDD DSCH/USCH	5.0.0	5.1.0
06/2002	16	RP-020412	652		Clarification on the Neighboring TDD Cell Measurement information	5.0.0	5.1.0
06/2002	16	RP-020412	654		Introduction of SIB	5.0.0	5.1.0
06/2002	16	RP-020412	655		Removal of syntax errors from ASN.1	5.0.0	5.1.0
06/2002	16	RP-020412	656		Interaction between HSDPA and IP transport in UTRAN	5.0.0	5.1.0
06/2002	16	RP-020412	658	1	Interaction between HSDPA and Bearer Re-arrangement	5.0.0	5.1.0
06/2002	16	RP-020412	659		Correction to Implementation of Rel-5	5.0.0	5.1.0
06/2002	16	RP-020412	662		Correction to the use of the CFN IE / SFN IE in the Measurement Initiation procedures	5.0.0	5.1.0
06/2002	16	RP-020412	665		TFCI 0 definition for TDD	5.0.0	5.1.0
06/2002	16	RP-020412	670	1	NBAP Review – Alignment on the ASN.1	5.0.0	5.1.0
06/2002	16	RP-020412	672	1	NBAP Review Alignment of the ASN.1	5.0.0	5.1.0

06/2002	16	RP-020412	675		Definition of quality figures for SFN-SFN and Tutran-gps measurement value information	5.0.0	5.1.0
06/2002	16	RP-020412	686	1	Clarification for the usage of the cause value	5.0.0	5.1.0
06/2002	16	RP-020412	693	2	HS-DSCH Initial credits F	5.0.0	5.1.0
06/2002	16	RP-020412	698	1	TFCI2 bearer clarification	5.0.0	5.1.0
09/2002	17	RP-020612	706		WG4 Reference Corrections	5.1.0	5.2.0
09/2002	17	RP-020614	708		Rx Timing Deviation (TDD) corrections	5.1.0	5.2.0
09/2002	17	RP-020616	710		Clarification on the Common Measurement Reporting procedure	5.1.0	5.2.0
09/2002	17	RP-020628	711	1	Correction of HSDPA Common Configuration	5.1.0	5.2.0
09/2002	17	RP-020628	712		TFCI2 Bearer correction for IP transport	5.1.0	5.2.0
09/2002	17	RP-020628	686	1	Partial dedicated measurement reporting	5.1.0	5.2.0
09/2002	17	RP-020647	713	3	CQI and ACK/NACK Repetition Factor and Power Offset and k-value	5.1.0	5.2.0
09/2002	17	RP-020622	714		Change of Maximum Number of HS-SCCH Codes	5.1.0	5.2.0
09/2002	17	RP-020618	715	1	Clarification for the initial power of the power balancing (Pinit)	5.1.0	5.2.0
09/2002	17	RP-020619	716		Removal of BLER for HS-DSCH	5.1.0	5.2.0
09/2002	17	RP-020617	717	1	Correction for inconsistency in length of TFCI field 3	5.1.0	5.2.0
09/2002	17	RP-020629	514		One possible invisible implementation for UTRAN pure systems of GERAN specific LCS change in RANAP	5.1.0	5.2.0
09/2002	17	RP-020589	721	1	Replacing all occurences of $P_{SIR}(k)$ by ΔP_{curr} in 25.423	5.1.0	5.2.0
09/2002	17	RP-020623	725	1	RL Parameter Update Procedure	5.1.0	5.2.0
09/2002	17	RP-020630	727	2	IP_offset correction	5.1.0	5.2.0
09/2002	17	RP-020613	729	2	Uplink Synchronisation in 1.28Mcps TDD	5.1.0	5.2.0
09/2002	17	RP-020609	733	2	Modification of PICH Parameters LCR TDD	5.1.0	5.2.0
09/2002	17	RP-020604	739	1	Handling of conflicting specification text	5.1.0	5.2.0
09/2002	17	RP-020609	741	1	Correction to the specification of Optional IEs	5.1.0	5.2.0
12/2002	18	RP-020754	747		Alignment of Error Indication procedure text to the latest RNSAP	5.2.0	5.3.0
12/2002	18	RP-020758	749		Add UL SIR_target for Unsynchronized RL Reconfiguration in 1.28Mcps TDD	5.2.0	5.3.0
12/2002	18	RP-020757	751		Correction to RX Timing Deviation LCR value range	5.2.0	5.3.0
12/2002	18	RP-020759	753	2	Slot Format for 1.28Mcps TDD	5.2.0	5.3.0
12/2002	18	RP-020754	755		SYNC_DL_Code ID for 1.28Mcps TDD	5.2.0	5.3.0
12/2002	18	RP-020773	756	1	Measurement power offset signalling for HSDPA	5.2.0	5.3.0
12/2002	18	RP-020768	757		Power offset values for HS-DPCCH	5.2.0	5.3.0
12/2002	18	RP-020855	764	3	MAC-hs Window Size	5.2.0	5.3.0
12/2002	18	RP-020754	767	1	Clarification on the Minimum Spreading Factor for TDD	5.2.0	5.3.0
12/2002	18	RP-020767	770	1	Addition of the second TDD Channelisation Code of HS-SCCH for the 1.28Mcps TDD option.	5.2.0	5.3.0
12/2002	18	RP-020765	772	1	Clarfication of the usage of HS-DSCH-RNTI	5.2.0	5.3.0
12/2002	18	RP-020754	780		Clarification to RACH for 1.28Mcps TDD	5.2.0	5.3.0
12/2002	18	RP-020763	781		Correction for the definition of the MAC-hs Reordering Buffer Size IE	5.2.0	5.3.0
12/2002	18	RP-020766	782		Clarification for the inclusion of the DL Power Balancing Updated Indicator IE	5.2.0	5.3.0
12/2002	18	RP-020744	785		Correction for the DL DPDCH transmission	5.2.0	5.3.0
03/2003	19	RP-030068	791		Clarification to DL Power definition for TDD	5.3.0	5.4.0
03/2003	19	RP-030077	792	3	Correction to DL Tx Power for TDD	5.3.0	5.4.0
03/2003	19	RP-030072	794		TPC Step Size for TDD	5.3.0	5.4.0
03/2003	19	RP-030069	796		Clarification to 2nd Interleaving Mode for TDD	5.3.0	5.4.0
03/2003	19	RP-030063	797	2	HS-PDSCH Code and Timeslot Resource Assignment for TDD	5.3.0	5.4.0
03/2003	19	RP-030078	798	1	HS-PDSCH NBAP Corrections for TDD	5.3.0	5.4.0
03/2003	19	RP-030073	800	1	Clarification of HS-SCCH power offset usage in case of multiple HS-SCCHs	5.3.0	5.4.0
03/2003	19	RP-030081	801	1	HS-DSCH: addition of non-HS-DSCH power measurement	5.3.0	5.4.0
03/2003	19	RP-030080	803	1	Measurement for HS-SICH Outer Loop Power Control	5.3.0	5.4.0
03/2003	19	RP-030082	806	1	Corrections to Channelisation Code TFCI Mapping for TDD	5.3.0	5.4.0
03/2003	19	RP-030070	808		Correction for the Information Exchange Initiation procedure	5.3.0	5.4.0
03/2003	19	RP-030074	809	1	T1 signalling for HSDPA	5.3.0	5.4.0
03/2003	19	RP-030071	811		Midamble Configuration for Midamble Shift LCR	5.3.0	5.4.0
03/2003	19	RP-030066	818		Corrections to DCH Combining in RL SETUP and RL ADDITION	5.3.0	5.4.0
03/2003	19	RP-030059	823		Correction of PRACH Midamble for 1.28Mcps TDD	5.3.0	5.4.0
03/2003	19	RP-030076	827	2	Guaranteed Bit Rate for HSDPA	5.3.0	5.4.0
06/2003	20	RP-030332	833		Alignment of TDD HSDPA parameters to RAN2 and RAN 1.	5.4.0	5.5.0
06/2003	20	RP-030278	834		Non HSDPA Code Power Measurement for TDD	5.4.0	5.5.0
06/2003	20	RP-030333	835		HSDPA General Corrections	5.4.0	5.5.0
06/2003	20	RP-030320	840		Alignment of maximum HS DSCH code numbers to 25.211	5.4.0	5.5.0
06/2003	20	RP-030320	841		Correction in the tabular format of the CELL SYNCHRONISATION REPORT [TDD] message	5.4.0	5.5.0
06/2003	20	RP-030320	842		Clarification of optional IEs for Node B synchronisation for LCR TDD	5.4.0	5.5.0
06/2003	20	RP-030334	843		TDD Channelisation Code LCR correction for HSDPA	5.4.0	5.5.0
06/2003	20	RP-030325	845		GPS trigger condition	5.4.0	5.5.0

06/2003	20	RP-030329	850	1	HS-SCCH Change Indicator	5.4.0	5.5.0
06/2003	20	RP-030335	854		Correction to HARQ Memory Partitioning	5.4.0	5.5.0
06/2003	20	RP-030337	855		Correction for the value range of 'CQI Feedback cycle, k'	5.4.0	5.5.0
06/2003	20	RP-030336	856	1	Clarification for the handling of the HS-DSCH	5.4.0	5.5.0
06/2003	20	RP-030320	857	1	Clarification of SCCPCH maximum power for TDD	5.4.0	5.5.0
06/2003	20	RP-030328	859	2	Resource handling of HS-DSCH Guaranteed Bit Rate	5.4.0	5.5.0
06/2003	20	RP-030324	862		Alignment of the Requested Data Value Information IE description	5.4.0	5.5.0
06/2003	20	RP-030320	865		HS-SCCH Code deletion/replacement with Physical Shared Channel Reconfiguration	5.4.0	5.5.0
06/2003	20	RP-030326	867		Correction of Failure message used for logical errors	5.4.0	5.5.0
09/2003	21	RP-030451	868	2	Discard timer signalling for HSDPA	5.5.0	5.6.0
09/2003	21	RP-030452	869	1	Phase Reference Signalling Support	5.5.0	5.6.0
09/2003	21	RP-030449	874	2	HS-DSCH Priority Queue to Modify	5.5.0	5.6.0
09/2003	21	RP-030536	875	2	MAC-hs Reordering Buffer Size	5.5.0	5.6.0
09/2003	21	RP-030441	876	1	Correction of HS-SCCH Code IE	5.5.0	5.6.0
09/2003	21	RP-030441	877	1	Power configuration of PDSCH for TDD	5.5.0	5.6.0
09/2003	21	RP-030443	881		Corrections to Tx Diversity	5.5.0	5.6.0
09/2003	21	RP-030444	884		'On Modification' and 'Periodic' reporting alignment for Information Exchange procedures	5.5.0	5.6.0
09/2003	21	RP-030445	886		Alignment of title and sub-clause text of chapter 10.3.4.2	5.5.0	5.6.0
09/2003	21	RP-030446	887	1	Removal of the note in chapter 10	5.5.0	5.6.0
09/2003	21	RP-030441	888	1	Correction for the start code number of HS-PDSCH	5.5.0	5.6.0
09/2003	21	RP-030447	890	2	Coordination with RRC about the TFS of DL DCH for HS-DSCH	5.5.0	5.6.0
09/2003	21	RP-030453	893	2	HS-DSCH information usage description correction	5.5.0	5.6.0
09/2003	21	RP-030441	894		Correction of CR 609 implementation error on definition of end of audit sequence indicator and dwPCH power	5.5.0	5.6.0
09/2003	21	RP-030441	898	2	Clarification to the Constant Value for TDD	5.5.0	5.6.0
12/2003	22	RP-030674	900	1	Correction of wrong number in GPS Timing calculation	5.6.0	5.7.0
12/2003	22	RP-030687	901		Correction for the HS-DSCH Initial Capacity Allocation	5.6.0	5.7.0
12/2003	22	RP-030688	902		Correction of Backward Compatibility for Uni-directional DCH indicator	5.6.0	5.7.0
12/2003	22	RP-030692	903		Reconfiguration of Multiple Radio Links in TDD	5.6.0	5.7.0
12/2003	22	RP-030693	904		The usage of the MAC-hs Reordering Buffer Size	5.6.0	5.7.0
12/2003	22	RP-030679	907		Correction for the Dedicated Measurement procedure with all Node B Communication Context	5.6.0	5.7.0
12/2003	22	RP-030674	913		Correction of the repetition name for 1.28Mcps TDD in the RADIO LINK RECONFIGURATION PREPARE TDD message	5.6.0	5.7.0
12/2003	22	RP-030674	915	1	Correction of Node B synchronisation procedures	5.6.0	5.7.0
12/2003	22	RP-030674	917		Correction of the ProtocolIE-Single-Containers in ASN.1 for TDD	5.6.0	5.7.0
12/2003	22	RP-030674	919		ASN.1 corrections for 1.28Mcps TDD	5.6.0	5.7.0
12/2003	22	RP-030679	920	1	TDD-Review Corrections for NBAP Rel-5	5.6.0	5.7.0
12/2003	22	RP-030691	921	1	Range Extension for GPS Almanac Reporting	5.6.0	5.7.0
12/2003	22	RP-030713	925	2	'Explicit HARQ Memory Partitioning Clarification'	5.6.0	5.7.0
12/2003	22	RP-030674	927		Clarification of Timing advance applied for 1.28Mcps TDD	5.6.0	5.7.0
12/2003	22	RP-030684	931	1	Removal of the ambiguity about the activation time	5.6.0	5.7.0
12/2003	22	RP-030679	933		Ambiguity of the activation time of the Physical Shared CH Reconfiguration	5.6.0	5.7.0
12/2003	22	RP-030690	937	1	Correction to Addition of HS-DSCH MAC-d Flows	5.6.0	5.7.0
12/2003	22	RP-030679	938	1	Resource Status Indication and Audit for HSDPA	5.6.0	5.7.0
12/2003	22	RP-030695	939	1	Unsynchronised RL Reconfiguration for HSDPA	5.6.0	5.7.0
12/2003	22	RP-030694	940	2	TNL QoS for uplink IP traffic	5.6.0	5.7.0
12/2003	22	RP-030689	941		Correction of Transmission Gap Pattern Sequence Information	5.6.0	5.7.0
12/2003	22	RP-030679	945	2	NBAP Review	5.6.0	5.7.0
12/2003	22	RP-030679	946	1	Correction to Physical Shared Channel Reconfiguration for HSDPA	5.6.0	5.7.0
12/2003	22	RP-030679	947	1	Correction to Common Measurements for HSDPA	5.6.0	5.7.0
12/2003	22	RP-030683	949		Information Exchange Initiation behavior correction	5.6.0	5.7.0
12/2003	22	RP-030674	951		Extension of *Requested Data Value* IE	5.6.0	5.7.0
12/2003	22	RP-030726	935	2	Signalling Support for Beamforming Enhancement	5.7.0	6.0.0
03/2004	23	RP-040088	952		Interference measurement in UpPTS for 1.28Mcps TDD	6.0.0	6.1.0
03/2004	23	RP-040071	954	1	Enabling of closed loop transmit diversity in TDD mode	6.0.0	6.1.0
03/2004	23	RP-040071	956		Correction of Reconfiguration of Multiple Radio Links in TDD	6.0.0	6.1.0
03/2004	23	RP-040065	960		Corrections for HS-DSCH Configuration Signalling	6.0.0	6.1.0
03/2004	23	RP-040066	962	1	Priority Queue ID for HSDPA	6.0.0	6.1.0
03/2004	23	RP-040071	968	1	Correction of the Dedicated Measurement Initiation procedure with 'All NBCC'	6.0.0	6.1.0
03/2004	23	RP-040058	972	1	NBAP ASN.1 Corrections for the CELL SYNCHRONISATION RECONFIGURATION REQUEST TDD message	6.0.0	6.1.0
03/2004	23	RP-040071	974		NBAP Corrections for TDD	6.0.0	6.1.0
03/2004	23	RP-040068	978		Extension of the range of PCCPCH RSCP	6.0.0	6.1.0
03/2004	23	RP-040069	980		Introduce the description of AOA measurement in the Allowed Combinations of Dedicated Measurement	6.0.0	6.1.0
03/2004	23	RP-040067	983		Correction Related to HS-DSCH Information Response	6.0.0	6.1.0

03/2004	23	RP-040071	985		Correction to HS-SCCH Code Range	6.0.0	6.1.0
03/2004	23	RP-040064	987		Setting of TGPSI	6.0.0	6.1.0
06/2004	24	RP-040176	991	1	Correction of PHYSICAL SHARED CHANNEL RECONFIGURATION message	6.1.0	6.2.0
06/2004	24	RP-040178	993		Node B usage of the MAC-hs re-ordering buffer size	6.1.0	6.2.0
06/2004	24	RP-040180	995	1	Unsuccessful Operation of RL Setup Procedure for HSDPA	6.1.0	6.2.0
06/2004	24	RP-040184	997	1	Measurement Recovery Behavior for Common and Dedicated Measurement Procedures	6.1.0	6.2.0
06/2004	24	RP-040179	999		Clarification on number of and capacity reporting of Priority Queues	6.1.0	6.2.0
06/2004	24	RP-040181	1009		Power Balancing Corrections	6.1.0	6.2.0
06/2004	24	RP-040235	1010		Addition of TSTD for S-CCPCH in 3.84 Mcps TDD	6.1.0	6.2.0
09/2004	25	RP-040301	1014		Use of Communication Context id in NBAP reset	6.2.0	6.3.0
09/2004	25	RP-040295	1019	2	Addition of TSTD for S-CCPCH, PICH and PDSCH in 1.28 Mcps TDD	6.2.0	6.3.0
09/2004	25	RP-040301	1021		Re-wording of the Intra-Node B Serving HS-DSCH Radio Link Change in the Prepared Radio Link Reconfiguration procedure	6.2.0	6.3.0
09/2004	25	RP-040302	1025		Correction to tabular text associated with TDD DPCH Offset IE	6.2.0	6.3.0
09/2004	25	RP-040295	1029		Review on NBAP	6.2.0	6.3.0
09/2004	25	RP-040324	1032		Clarification on the FPACH configuration for 1.28Mcps TDD	6.2.0	6.3.0
09/2004	25	RP-040301	1036		Correction for HSDPA Ies	6.2.0	6.3.0
12/2004	26	RP-040434	1039		Removal of ASN ambiguity in TDD multiple RLs	6.3.0	6.4.0
12/2004	26	RP-040434	1041		Alignment of TFCI2/Signaling Bearer Re-arrangement IEs criticality and procedure text	6.3.0	6.4.0
12/2004	26	RP-040435	1048	1	Correction to the Assigned Criticality of UL Synchronisation Parameters LCR IE for 1.28Mcps TDD	6.3.0	6.4.0
12/2004	26	RP-040437	1049	4	Introduction of MBMS	6.3.0	6.4.0
12/2004	26	RP-040441	1056		outdated ITU-T reference	6.3.0	6.4.0
12/2004	26	RP-040434	1058	3	Adaptive encoding of IB_SG_DATA	6.3.0	6.4.0
12/2004	26	RP-040440	1059	1	CR for Introduction of E-DCH in NBAP	6.3.0	6.4.0
12/2004	26	RP-040518	1061		HS-DPCCH ACK/NACK preamble and postamble	6.3.0	6.4.0
03/2005	27	RP-050059	1068		Measurement Recovery Behavior in Dedicated Measurement Procedures	6.4.0	6.5.0
03/2005	27	RP-050054	1070		Availability Status reference correction	6.4.0	6.5.0
03/2005	27	RP-050038	1074	1	Removal of TGPL2	6.4.0	6.5.0
03/2005	27	RP-050053	1076		Wrong HS IE referenced	6.4.0	6.5.0
03/2005	27	RP-050054	1078		Measurement Power Offset IE optionality at HS-DSCH setup	6.4.0	6.5.0
03/2005	27	RP-050050	1080	1	Introduction of 'DL Transmission Branch Load' measurement	6.4.0	6.5.0
03/2005	27	RP-050058	1081	2	E-DCH NBAP ASN.1	6.4.0	6.5.0
03/2005	27	RP-050056	1082	1	Introduction of Fractional DPCH	6.4.0	6.5.0
03/2005	27	RP-050059	1083		Initial Radio Link Timing Adjustment	6.4.0	6.5.0
03/2005	27	RP-050062	1085	2	HSDPA Code Allocation/Measurement per Cell Portion	6.4.0	6.5.0
03/2005	27	RP-050053	1087		Interaction between Synchronised RL Reconfiguration and RL Deletion	6.4.0	6.5.0
03/2005	27	RP-050053	1089		Clarification on HS-DSCH Information IE	6.4.0	6.5.0
06/2005	28	RP-050254	1088	3	Timing maintained hard HO	6.5.0	6.6.0
06/2005	28	RP-050236	1091		Addition of SIB5bis in IB Type	6.5.0	6.6.0
06/2005	28	RP-050233	1094		Proposed CR to 25.433 [Rel-6] on some IEs with SatID	6.5.0	6.6.0
06/2005	28	RP-050233	1095		Correction to the on demand measurement with no DPCH ID in the dedicated measurement procedure for TDD	6.5.0	6.6.0
06/2005	28	RP-050236	1096	3	Revision to HARQ Preamble Mode support	6.5.0	6.6.0
06/2005	28	RP-050225	1099	2	Feature Cleanup: Removal of CPCH	6.5.0	6.6.0
06/2005	28	RP-050229	1100	1	E-DCH general corrections and improvements	6.5.0	6.6.0
06/2005	28	RP-050229	1103	2	E-DCH Capacity Consumption Law	6.5.0	6.6.0
06/2005	28	RP-050229	1106	2	E-DCH diversity control	6.5.0	6.6.0
06/2005	28	RP-050229	1107	2	E-DCH: Provided bit-rate per logical channel priority measurement	6.5.0	6.6.0
06/2005	28	RP-050229	1108	1	E-DCH Maximum Received Total Wide Band Power	6.5.0	6.6.0
06/2005	28	RP-050224	1110	1	Feature clean-up: Removal of Compressed mode by puncturing	6.5.0	6.6.0
06/2005	28	RP-050221	1112	1	Feature clean-up: Removal of Tx diversity closed loop mode2	6.5.0	6.6.0
06/2005	28	RP-050222	1114	1	Feature clean-up: Removal of DSCH (FDD mode)	6.5.0	6.6.0
06/2005	28	RP-050218	1116	1	Feature Clean-up: Removal of 80 ms TTI for DCH for all other cases but when the UE supports SF512	6.5.0	6.6.0
06/2005	28	RP-050220	1118		Feature Clean-up: Removal of Support of dedicated pilot as sole phase reference	6.5.0	6.6.0
06/2005	28	RP-050219	1120	1	Feature Clean-up: Removal of SSDT	6.5.0	6.6.0
06/2005	28	RP-050229	1121	1	Correction on E-RGCH Sequence Signature	6.5.0	6.6.0
06/2005	28	RP-050230	1122	1	Introduction of Bundling Feature	6.5.0	6.6.0
06/2005	28	RP-050228	1124	1	Synchronisation for MBMS p-t-m Transmissions from Multiple Cells (Simulcast)	6.5.0	6.6.0
06/2005	28	RP-050229	1125	1	Alignment of NBAP with latest status of EUDCH stage 2 (TS 25.309) and RRC (TS 25.331)	6.5.0	6.6.0
09/2005	29	RP-050433	1126	2	NBAP stage 3 alignment with current status	6.6.0	6.7.0

09/2005	29	RP-050433	1127		E-DCH Minimum Set Reference Correction	6.6.0	6.7.0
09/2005	29	RP-050444	1128	1	Improvement of the Abnormal Conditions description of the COMMON MEASUREMENT INITIATION procedure	6.6.0	6.7.0
09/2005	29	RP-050435	1130	1	Signalling of Reference Received Total Wideband Power IE	6.6.0	6.7.0
09/2005	29	RP-050435	1132		Transport Bearer Rearrangement for HSUPA	6.6.0	6.7.0
09/2005	29	RP-050437	1135		Correction for Beamforming	6.6.0	6.7.0
09/2005	29	RP-050440	1136	2	Non HS transmitted power	6.6.0	6.7.0
09/2005	29	RP-050433	1140		E-DCH miscellaneous corrections	6.6.0	6.7.0
09/2005	29	RP-050434	1141		Maximum UE TX Power for E-DCH	6.6.0	6.7.0
09/2005	29	RP-050443	1142		Addition of MBMS Notification function description	6.6.0	6.7.0
09/2005	29	RP-050444	1143	1	Proposed CR to 25.433 [Rel-6] on Correction for the measurement report for PUSCH for TDD	6.6.0	6.7.0
09/2005	29	RP-050444	1144	2	Proposed CR to 25.433 [Rel-6] on Correction for DPCH Modification in asynthronised RL reconfiguration procedure for LCR TDD	6.6.0	6.7.0
09/2005	29	RP-050433	1145	2	Serving to Non-serving power ratio	6.6.0	6.7.0
09/2005	29	RP-050433	1146		EDCH cleanup	6.6.0	6.7.0
09/2005	29	RP-050433	1147		Reconfiguration of E-RGCH/HICH at serving cell change	6.6.0	6.7.0
09/2005	29	RP-050440	1148	1	Maximum Transmission Power and Total HS Power for Cell Portion	6.6.0	6.7.0
12/2005	30	RP-050700	1151	1	Compressed Mode Reconfiguration	6.7.0	6.8.0
12/2005	30	RP-050699	1155	3	NBAP clean-up	6.7.0	6.8.0
12/2005	30	RP-050695	1156	2	EDCH Cell Capability Enhancement	6.7.0	6.8.0
12/2005	30	RP-050695	1157		FDD Downlink Unidirectional DCH Indicator	6.7.0	6.8.0
12/2005	30	RP-050695	1158	3	FDD Unidirectional DCH Indicator reconfiguration	6.7.0	6.8.0
12/2005	30	RP-050694	1160	4	HARQ Process Management for E-DCH	6.7.0	6.8.0
12/2005	30	RP-050694	1161	2	E-DCH processing issue and rate limitation	6.7.0	6.8.0
12/2005	30	RP-050696	1162	3	HSPA Serving Cell Change by RL Addition Procedure	6.7.0	6.8.0
12/2005	30	RP-050694	1165	3	Alignment of NBAP with latest HSUPA agreements	6.7.0	6.8.0
12/2005	30	RP-050699	1166	1	Abnormal Condition for Maximum Target Received Total Wideband Power	6.7.0	6.8.0
12/2005	30	RP-050699	1167		HSUPA DL Channel Code Allocation per Cell Portion	6.7.0	6.8.0
12/2005	30	RP-050696	1168	2	Correction for HARQ Preamble and Postamble	6.7.0	6.8.0
12/2005	30	RP-050700	1169		Alignment of Tables in the Common Measurement Description	6.7.0	6.8.0
12/2005	30	RP-050699	1173	1	Update of EDCH Capacity consumption law	6.7.0	6.8.0
12/2005	30	RP-050694	1174	1	EDCH setup by unsynchronised reconfiguration	6.7.0	6.8.0
12/2005	30	RP-050696	1175		FDPCH and HS-SCCH power offset	6.7.0	6.8.0
12/2005	30	RP-050849	1179	1	E-DCH HARQ RV Configuration	6.7.0	6.8.0
03/2006	31	RP-060064	1178	2	E-DCH HARQ Combining Capability	6.8.0	6.9.0
03/2006	31	RP-060067	1182	1	F-DPCH Cell Capability Enhancement	6.8.0	6.9.0
03/2006	31	RP-060067	1186		Correction of Notification Indicator	6.8.0	6.9.0
03/2006	31	RP-060065	1188	3	Adding HS-DSCH TDD Info in Radio Link Addition procedure	6.8.0	6.9.0
03/2006	31	RP-060063	1189	1	Combined Active Set Update and E-DCH Serving Cell Change with Radio Link Addition Request (Inter Node B Case)	6.8.0	6.9.0
03/2006	31	RP-060067	1190		NBAP Review before Freezing	6.8.0	6.9.0
03/2006	31	RP-060064	1191	1	E-DCH Mac-D PDU Size List Alignment	6.8.0	6.9.0
03/2006	31	RP-060064	1192	2	Non serving HSDPA indicator for E-DCH	6.8.0	6.9.0
03/2006	31	RP-060064	1193		Clarification on serving EDCH cell change	6.8.0	6.9.0
03/2006	31	RP-060068	1196		Error Correction ASN.1 Radio Link Parameter Update	6.8.0	6.9.0
03/2006	31	RP-060063	1197		CR cross-dependencies for HS cell change by RL ADDITION	6.8.0	6.9.0
03/2006	31	RP-060064	1199		Alignment of E-DCH RL Set ID	6.8.0	6.9.0
03/2006	31	RP-060063	1200		Compressed Mode Correction	6.8.0	6.9.0
03/2006	31	RP-060060	1203	1	Addition of the SIR Target for HS-SICH in 1.28Mcps TDD	6.8.0	6.9.0
03/2006	31	RP-060063	1204	1	Correction to the on demand mesurement for the HS-SICH in the dedicated measurement procedure for TDD	6.8.0	6.9.0
03/2006	31	RP-060064	1205		Correction of criticality for Unirectional DCH Indictor	6.8.0	6.9.0
03/2006	31	RP-060066	1206	1	HARQ Failure Indication due to MAC-e Reset in UE	6.8.0	6.9.0
03/2006	31	RP-060068	1208		General Corrections and Improvements for E-DCH	6.8.0	6.9.0
03/2006	31	RP-060067	1209	1	Correction on HSPA Serving Cell Change using RL Addition procedure	6.8.0	6.9.0
03/2006	31	RP-060084	1211	1	Non-serving E-DCH Load Excess Indication	6.8.0	6.9.0
03/2006	31	RP-060069	1212	2	Introduction of E-DCH Reference Power Offset	6.8.0	6.9.0
03/2006	31	RP-060067	1213		Clarification on SCCH TPC step size for LCR TDD	6.8.0	6.9.0
03/2006	31	RP-060070	1184	1	Introduction of the PLCCH	6.9.0	7.0.0
03/2006	31	RP-060073	1185	1	Introduction of 7.68Mcps TDD option	6.9.0	7.0.0
06/2006	32	RP-060285	1215	2	Correction to the Time Slot Format Configuration of PUSCH/PDSCH for LCR TDD	7.0.0	7.1.0
06/2006	32	RP-060279	1217	2	CR to 25.433[Rel-7] on correction for DL DPCH Power Information	7.0.0	7.1.0
06/2006	32	RP-060280	1226	1	CR cross-dependencies for E-DCH Reference Power Offset by RL ADDITION	7.0.0	7.1.0
06/2006	32	RP-060280	1230	2	Corrections to E-DCH Uplink Combination in RL SETUP and RL ADDITION	7.0.0	7.1.0
06/2006	32	RP-060281	1234	1	Correction of the common related information for E-HICH and E-	7.0.0	7.1.0

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06/2006	32	RP-060281	1236		E-RGCH/E-HICH Power Offset value range	7.0.0	7.1.0
06/2006	32	RP-060279	1238		Corrections to Combined RL Additoin with HS-DSCH /E-DCH Serving change	7.0.0	7.1.0
06/2006	32	RP-060290	1239	2	Release 7 Timing Advance (3.84 Mpcs and 7.68 Mcps TDD)	7.0.0	7.1.0
06/2006	32	RP-060291	1240		Addition of HS-DSCH information in radio link addition procedure for 7.68 Mcps TDD	7.0.0	7.1.0
06/2006	32	RP-060280	1242	2	E-DCH and HS-DSCH same serving cell	7.0.0	7.1.0
06/2006	32	RP-060280	1244	1	HS-DSCH Configured Indicator for Radio Link Addition	7.0.0	7.1.0
06/2006	32	RP-060281	1246	1	E-RNTI allocation on serving change	7.0.0	7.1.0
06/2006	32	RP-060276	1250		Aspect of CPCH not removed for power offset	7.0.0	7.1.0
06/2006	32	RP-060407	1252	2	Introduction of TNL QoS IE for shared channels	7.0.0	7.1.0
06/2006	32	RP-060289	1253	1	Change semantic description in tabular format of UARFCN IE	7.0.0	7.1.0
06/2006	32	RP-060431	1256	2	Power Offset for E-DCH control-only transmissions	7.0.0	7.1.0
06/2006	32	RP-060281	1258	1	Abnormal condition for HS-DSCH Configured Indicator IE	7.0.0	7.1.0
09/2006	33	RP-060495	1260	2	Introduction of a Node B measurement for E-DCH RRM	7.1.0	7.2.0
09/2006	33	RP-060506	1262	3	Modifying HS-DSCH Physical Layer Category Info in Radio Link Reconfiguration procedure	7.1.0	7.2.0
09/2006	33	RP-060506	1270	2	Addition of the TPC step size for HS-SICH in 1.28Mcps TDD	7.1.0	7.2.0
09/2006	33	RP-060501	1275	1	Correction on the value range of E-DCH IEs	7.1.0	7.2.0
09/2006	33	RP-060505	1277	2	Corrections on physical shared channel reconfiguration	7.1.0	7.2.0
09/2006	33	RP-060501	1279	1	E-AGCH and E-RGCH/E-HICH FDD scrambling code in response messages	7.1.0	7.2.0
09/2006	33	RP-060500	1281	1	DCH combined when EDCH operation	7.1.0	7.2.0
09/2006	33	RP-060505	1283		Alignment of the RL Specific E-DCH Information IE tabular format to ASN.1	7.1.0	7.2.0
09/2006	33	RP-060500	1287		Optional usage of the E-DCH Reference Power Offset IE	7.1.0	7.2.0
09/2006	33	RP-060506	1289	1	Clarification on Communication Context ID usage for the Reset Request	7.1.0	7.2.0
09/2006	33	RP-060498	1292		TFCI2 bearer Cleanup for Radio link Deletion	7.1.0	7.2.0
09/2006	33	RP-060511	1294	1	Introduction of 3.84 Mcps and 7.68Mcps TDD Enhanced Uplink	7.1.0	7.2.0
09/2006	33	RP-060506	1296	2	Per time slot configuration of TFCI for TDD FACH type CCTrCHs	7.1.0	7.2.0
09/2006	33	RP-060509	1299	2	Extended WCDMA Cell Range	7.1.0	7.2.0
09/2006	33	RP-060514	1300	1	Addition of missing ASN.1 from CR1252	7.1.0	7.2.0
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09/2006	33	RP-060505	1307		General Description for E-DCH in RL Setup procedure	7.1.0	7.2.0
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